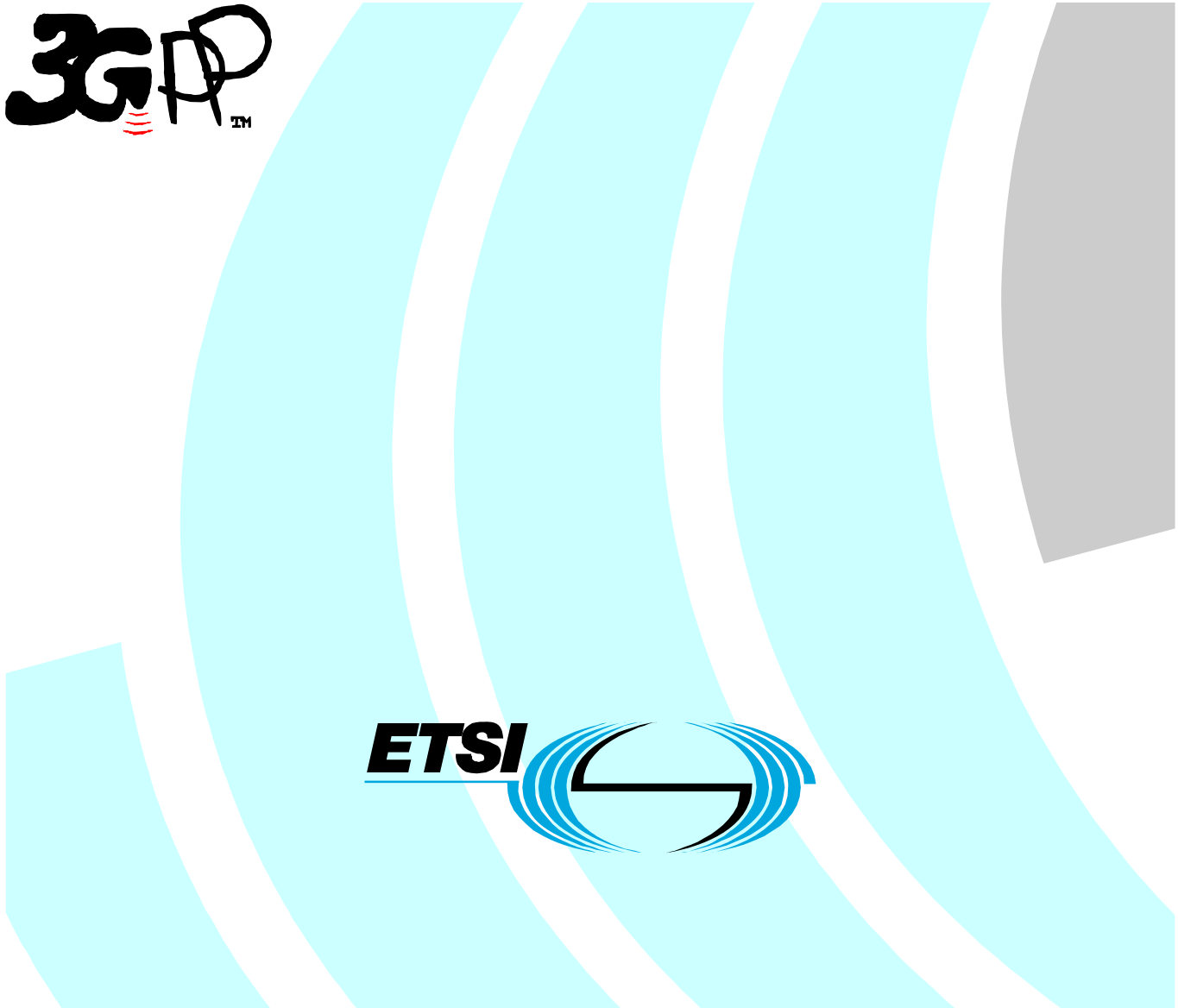
# ETSI TS 125 423 V9.4.0 (2010-10)

*Technical Specification*

**Universal Mobile Telecommunications System (UMTS);**
**UTRAN Iur interface Radio Network Subsystem Application Part (RNSAP) signalling**
**(3GPP TS 25.423 version 9.4.0 Release 9)**



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# Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

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Y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

# 1 Scope

The present document specifies the radio network layer signalling procedures of the control plane between RNCs in UTRAN, between RNC in UTRAN and BSS in GERAN Iu mode and between BSSs in GERAN Iu mode.

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] 3GPP TS 23.003: “Numbering, addressing and identification”.

[2] 3GPP TS 25.413: ”UTRAN Iu Interface RANAP Signalling”.

[3] 3GPP TS 25.426: “UTRAN Iur and Iub Interface Data Transport & Transport Layer Signalling for DCH Data Streams”.

[4] 3GPP TS 25.427: “UTRAN Iur and Iub Interface User Plane Protocols for DCH Data Streams”.

[5] 3GPP TS 25.435: “UTRAN Iub interface User Plane Protocols for Common Transport Channel Data Streams”.

[6] 3GPP TS 25.104: “UTRA (BS) FDD; Radio transmission and Reception”.

[7] 3GPP TS 25.105: “UTRA (BS) TDD; Radio Transmission and Reception”.

[8] 3GPP TS 25.211: “Physical Channels and Mapping of Transport Channels onto Physical Channels (FDD)”.

[9] 3GPP TS 25.212: “Multiplexing and Channel Coding (FDD)”.

[10] 3GPP TS 25.214: “Physical Layer Procedures (FDD)”.

[11] 3GPP TS 25.215: “Physical Layer – Measurements (FDD)”.

[12] 3GPP TS 25.221: “Physical Channels and Mapping of Transport Channels onto Physical Channels (TDD)”.

[13] 3GPP TS 25.223: “Spreading and Modulation (TDD)”.

[14] 3GPP TS 25.225: “Physical Layer – Measurements (TDD)”.

[15] 3GPP TS 25.304: “UE Procedures in Idle Mode”

[16] 3GPP TS 25.331: “RRC Protocol Specification”.

[17] 3GPP TS 25.402: ”Synchronisation in UTRAN, Stage 2”.

[18] ITU-T Recommendation X.680 (07/2002): ”Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation”.

[19] ITU-T Recommendation X.681 (07/2002): ”Information technology – Abstract Syntax Notation One (ASN.1): Information object specification”.

[20] ITU-T Recommendation X.691 (07/2002): "Information technology – ASN.1 encoding rules – Specification of Packed Encoding Rules (PER)".

[21] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[22] 3GPP TS 25.224: "Physical Layer Procedures (TDD)".

[23] 3GPP TS 25.133: "Requirements for support of Radio Resource management (FDD)".

[24] 3GPP TS 25.123: "Requirements for support of Radio Resource management (TDD)".

[25] 3GPP TS 23.032: "Universal Graphical Area Description (GAD)".

[26] 3GPP TS 25.302: "Services Provided by the Physical Layer".

[27] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[28] 3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".

[29] GSM TS 05.05: "Digital cellular telecommunications system (Phase 2+); Radio transmission and reception".

[30] ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".

[31] RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".

[32] 3GPP TS 25.425: "UTRAN Iur and Iub Interface User Plane Protocols for Common Transport Channel data streams ".

[33] IETF RFC 2460 "Internet Protocol, Version 6 (Ipv6) Specification".

[34] IETF RFC 768 "User Datagram Protocol", (8/1980)

[35] 3GPP TS 25.424: " UTRAN Iur Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ".

[36] 3GPP TS 44.118: "Mobile radio interface layer 3 specification; Radio Resource Control (RRC) Protocol Iu mode".

[37] 3GPP TR 43.930: "Iur-g interface; Stage 2".

[38] 3GPP TS 48.008: "Mobile-services Switching Centre – Base Station System (MSC – BSS) interface; Layer 3 specification".

[39] 3GPP TS 43.051: "GSM/EGDE Radio Access Network; Overall description – Stage 2".

[40] 3GPP TS 25.401: "UTRAN Overall Description".

[41] 3GPP TS 25.321: "MAC protocol specification".

[42] 3GPP TS 25.306: "UE Radio Access capabilities".

[43] 3GPP TS 25.101: " User Equipment (UE) radio transmission and reception (FDD)".

[44] IETF RFC 2474 "Definition of the Differentiated Services Field (DS Field) in the Ipv4 and Ipv6 Headers".

[45] IETF RFC 2475 "An Architecture for Differentiated Services".

[46] 3GPP TS 25.222: "Multiplexing and Channel Coding (TDD)".

[47] 3GPP TS 44.060: "General Packet Radio Service (GPRS); Mobile Station (MS) – Base Station System (BSS) interface; Radio Link Control/Medium Access Control (RLC/MAC) protocol".

[48] 3GPP TS 32.421: "Subscriber and equipment trace: Trace concepts and requirements".

[49] 3GPP TS 32.422: "Subscriber and equipment trace: Trace control and Configuration Management".

[50] 3GPP TS 25.346: "Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network (Stage-2) ".

[51] 3GPP TS 23.246: "Multimedia Broadcast Multicast Service; Architecture and Functional Description".

[52] 3GPP TS 25.319: " Enhanced Uplink; Overall description; Stage 2".

[53] Galileo OS Signal in Space ICD (OS SIS ICD), Draft 0, Galileo Joint Undertaking, May 23rd, 2006.

[54] 3GPP TS 23.251: "Network Sharing: Architecture and functional description".

[55] IS-GPS-200, Revision D, Navstar GPS Space Segment/Navigation User Interfaces, March 7th, 2006.

[56] IS-GPS-705, Navstar GPS Space Segment/User Segment L5 Interfaces, September 22, 2005.

[57] IS-GPS-800, Navstar GPS Space Segment/User Segment L1C Interfaces, March 31, 2008.

[58] Specification for the Wide Area Augmentation System (WAAS), US Department of Transportation, Federal Aviation Administration, DTFA01-96-C-00025, 2001.

[59] IS-QZSS, Quasi Zenith Satellite System Navigation Service Interface Specifications for QZSS, Ver.1.0, June 17, 2008.

[60] Global Navigation Satellite System GLONASS Interface Control Document, Version 5, 2002.

[61] 3GPP TS 36.401: "Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Architecture Description".

[62] 3GPP TS 36.104: " Base Station (BS) radio transmission and reception ".

[63] 3GPP TS 25.308: "High Speed Downlink Packet Access (HSDPA); Overall description; Stage 2".

[64] 3GPP TS 36.133: "Requirements for support of radio resource management".

[65] 3GPP TS 23.195: "Provision of UE Specific Behaviour Information to Network Entities".

# 3 Definitions, Symbols and Abbreviations

## 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

**Elementary Procedure:** RNSAP protocol consists of Elementary Procedures (Eps). An Elementary Procedure is a unit of interaction between two RNCs. An EP consists of an initiating message and possibly a response message. Two kinds of Eps are used:

- **Class 1:** Elementary Procedures with response (success or failure);
- **Class 2:** Elementary Procedures without response.

For Class 1 Eps, the types of responses can be as follows:

Successful

- A signalling message explicitly indicates that the elementary procedure has been successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.

Class 2 Eps are considered always successful.

**Prepared Reconfiguration:** A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist anymore only after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed. In particular, the Prepared Reconfiguration still exists if the object (e.g. Radio Link) concerned by the Synchronised Radio Link Reconfiguration (e.g. in the case of an HS-DSCH Setup) is removed, but the UE Context still exists.

**UE Context:** The UE Context contains the necessary information for the DRNC/DBSS to communicate with a specific UE. The UE Context is created by the Radio Link Setup procedure or by the Uplink Signalling Transfer procedure when the UE makes its first access in a cell controlled by the DRNS/DBSS or by Enhanced Relocation procedure when the procedure is the first dedicated RNSAP procedure for the UE. The UE Context is deleted by the Radio Link Deletion procedure, by the Common Transport Channel Resources Release procedure, or by the Downlink Signalling Transfer procedure when neither any Radio Links nor any common transport channels are established towards the concerned UE. The UE Context is identified by the SCCP Connection for messages using connection oriented mode of the signalling bearer and the D-RNTI for messages using connectionless mode of the signalling bearer, unless specified otherwise in the procedure text.

**Distant RNC Context:** The Distant RNC context is created by the first Common Measurement Initiation Procedure or Information Exchange Initiation Procedure initiated by one RNC/BSS and requested from another RNC/BSS. The Distant RNC Context is deleted after the Common Measurement Termination, the Common Measurement Failure, the Information Exchange Termination or the Information Exchange Failure procedure when there is no more Common Measurement and no more Information to be provided by the requested RNC/BSS to the requesting RNC/BSS. The Distant RNC Context is identified by an SCCP connection as, for common measurements and information exchange, only the connection oriented mode of the signalling bearer is used.

**Signalling radio bearer 2:** The signalling radio bearer 2 is used by the UE to access a GERAN cell in order to perform RRC procedures [36].

**UE Link:** see definition in [50].

**URA Link:** see definition in [50].

**MBMS Bearer Service:** see defintion in [51].

**MBMS session:** see defintion in [50].

**MBMS session start:** see defintion in [50].

**MBMS session stop:** see defintion in [50].

**MBMS Selected Services**: see defintion in [50].

**PUESBINE feature:** as defined in [65].

## 3.2 Symbols

Void.

## 3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

| | |
|---|---|
| A-GPS | Assisted-GPS |
| ALCAP | Access Link Control Application Part |
| APN | Access Point Name |
| ASN.1 | Abstract Syntax Notation One |
| BER | Bit Error Rate |
| BLER | Block Error Rate |
| BSS | Base Station Subsystem |
| CBSS | Controlling BSS |
| CCCH | Common Control Channel |

| | |
|---|---|
| CCPCH | Common Control Physical Channel |
| CCTrCH | Coded Composite Transport Channel |
| CFN | Connection Frame Number |
| C-ID | Cell Identifier |
| CM | Compressed Mode |
| CN | Core Network |
| CPICH | Common Pilot Channel |
| CRNC | Controlling RNC |
| DBSS | Drift BSS |
| C-RNTI | Cell Radio Network Temporary Identifier |
| CS | Circuit Switched |
| CTFC | Calculated Transport Format Combination DCH Dedicated Channel |
| DGANSS | Differential GANSS |
| DGPS | Differential GPS |
| DL | Downlink |
| DPC | Downlink Power Control |
| DPCCH | Dedicated Physical Control Channel |
| DPCH | Dedicated Physical Channel |
| DPDCH | Dedicated Physical Data Channel |
| DRNC | Drift RNC |
| DRNS | Drift RNS |
| D-RNTI | Drift Radio Network Temporary Identifier |
| DRX | Discontinuous Reception |
| DSCH | Downlink Shared Channel |
| Ec | Energy in single Code |
| E-AGCH | E-DCH Absolute Grant Channel |
| E-DCH | Enhanced UL DCH |
| E-HICH | E-DCH HARQ Acknowledgement Indicator Channel |
| E-PUCH | Enhanced Uplink Physical Channel (TDD only) |
| E-RNTI | E-DCH RNTI |
| E-RUCCH | E-DCH Random Access Uplink Control Channel (TDD only) |
| E-TFCI | E-DCH Transport Format Combination Indicator |
| E-UCCH | E-DCH Uplink Control Channel (TDD only) |
| E-UTRA | Evolved UTRA |
| EDSCHPC | Enhanced Downlink Shared Channel Power Control |
| EGNOS | European Geostationary Navigation Overlay Service |
| EP | Elementary Procedure |
| FACH | Forward Access Channel |
| FDD | Frequency Division Duplex |
| F-DPCH | Fractional DPCH |
| FN | Frame Number |
| FP | Frame Protocol |
| GANSS | Galileo and Additional Navigation Satellite Systems |
| GERAN | GSM EDGE Radio Access Network |
| GA | Geographical Area |
| GAGAN | GPS Aided Geo Augmented Navigation |
| GAI | Geographical Area Identifier |
| GLONASS | GLObal'naya Navigatsionnaya Sputnikovaya Sistema (Engl.: Global Navigation Satellite System) |
| GNSS | Global Navigation Satellite System |
| GPS | Global Positioning System |
| GRA | GERAN Registration Area |
| GSM | Global System Mobile |
| GWCN | Gateway Core Network |
| HSDPA | High Speed Downlink Packet Access |
| HW | Hardware |
| IB | Information Block |
| ICD | Interface Control Document |
| ID | Identity or Identifier |
| IE | Information Element |
| IMSI | International Mobile Subscriber Identity |
| IP | Internet Protocol |
| IPDL | Idle Period DownLink |

| | |
|---|---|
| ISCP | Interference Signal Code Power |
| LAC | Location Area Code |
| LCR | Low Chip Rate (1.28 Mcps) |
| LCS | Location Services |
| MAC | Medium Access Control |
| MBMS | Multimedia Broadcast Multicast Service |
| MOCN | Multi-Operator Core Network |
| MRNC | MBMS Master RNC |
| MS | Mobile Station |
| MSAS | Multi-functional Satellite Augmentation System |
| NACC | Network Assissted Cell Change |
| NAS | Non Access Stratum |
| No | Reference Noise |
| NRT | Non Real Time |
| O&M | Operation and Maintenance |
| P(-)CCPCH | Primary CCPCH |
| PCH | Paging Channel |
| OTD | Observed Time Difference |
| P(-)CPICH | Primary CPICH |
| PCS | Personal Communication Services |
| PDSCH | Physical Downlink Shared Channel |
| PDU | Protocol Data Unit |
| PhCH | Physical Channel |
| PICH | Paging Indication Channel |
| PLCCH | Physical Layer Common Control Channel |
| Pos | Position or Positioning |
| PRACH | Physical Random Access Channel |
| PTP | Point To Point |
| PTM | Point To Multipoint |
| PS | Packet Switched |
| PUESBINE | Provision of UE Specific Behaviour Information to Network Entities |
| QE | Quality Estimate |
| QZSS | Quasi-Zenith Satellite System |
| RAC | Routing Area Code |
| RACH | Random Access Channel |
| RAN | Radio Access Network |
| RANAP | Radio Access Network Application Part |
| RB | Radio Bearer |
| RL | Radio Link |
| RLC | Radio Link Control |
| RLS | Radio Link Set |
| RM | Rate Matching |
| RNC | Radio Network Controller |
| RNS | Radio Network Subsystem |
| RNSAP | Radio Network Subsystem Application Part |
| RNTI | Radio Network Temporary Identifier |
| RRC | Radio Resource Control |
| RT | Real Time |
| RSCP | Received Signal Code Power |
| SBAS | Satellite Based Augmentation System |
| SBSS | Serving BSS |
| Rx | Receive or Reception |
| Sat | Satellite |
| SCCP | Signalling Connection Control Part |
| S(-)CCPCH | Secondary CCPCH |
| SCH | Synchronisation Channel |
| SCTD | Space Code Transmit Diversity |
| SDU | Service Data Unit |
| SF | System Frame |
| SFN | System Frame Number |
| SHCCH | Shared Control Channel |
| SIR | Signal-to-Interference Ratio |

| | |
|---|---|
| SNA | Shared Network Area |
| SRB2 | Signalling radio bearer 2 |
| SRNC | Serving RNC |
| SRNS | Serving RNS |
| S-RNTI | Serving Radio Network Temporary Identifier |
| STTD | Space Time Transmit Diversity |
| TDD | Time Division Duplex |
| TF | Transport Format |
| TFCI | Transport Format Combination Indicator |
| TFCS | Transport Format Combination Set |
| TFS | Transport Format Set |
| TGCFN | Transmission Gap Connection Frame Number |
| TMGI | Temporary Mobile Group Identity |
| ToAWE | Time of Arrival Window Endpoint |
| ToAWS | Time of Arrival Window Startpoint |
| TPC | Transmit Power Control |
| TrCH | Transport Channel |
| TS | Time Slot |
| TSG | Technical Specification Group |
| TSTD | Time Switched Transmit Diversity |
| TTI | Transmission Time Interval |
| TX | Transmit or Transmission |
| UARFCN | UTRA Absolute Radio Frequency Channel Number |
| UDP | User Datagram Protocol |
| UC-ID | UTRAN Cell Identifier |
| UE | User Equipment |
| UL | Uplink |
| UMTS | Universal Mobile Telecommunications System |
| URA | UTRAN Registration Area |
| U-RNTI | UTRAN Radio Network Temporary Identifier |
| USCH | Uplink Shared Channel |
| UTC | Universal Coordinated Time |
| UTRA | Universal Terrestrial Radio Access |
| UTRAN | Universal Terrestrial Radio Access Network |
| WAAS | Wide Area Augmentation System |

# 4 General

## 4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the DRNC/CRNC exactly and completely. The SRNC functional behaviour is left unspecified. The Physical Channel Reconfiguration procedure, [TDD – the UE Measurement Inititation, the UE Measurement Reporting, UE Measurement Termination, UE Measurement Failure,] and the Reset procedure are an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:

  1) Functionality which "shall" be executed

     The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.

  04. Functionality which "shall, if supported" be executed

     The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the

receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.

Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included. For requirements for including *Criticality Diagnostics* IE, see section 10. For examples on how to use the *Criticality Diagnostics* IE, see Annex C.

## 4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism in which all current and future messages, and IEs or groups of related IEs, include ID and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

## 4.3 Source Signalling Address Handling

The sender of an RNSAP messages shall include the Source Signalling Address, i.e. the Signalling Address of the sending node.

## 4.4 Specification Notations

For the purposes of the present document, the following notations apply:

[FDD] This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD. This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section following the heading applies only to FDD.

[TDD] This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD, including 3.84Mcps TDD, 7.68Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including 3.84Mcps TDD, 7.68Mcps TDD and 1.28Mcps TDD.

[3.84Mcps TDD] This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.

[1.28Mcps TDD] This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps TDD.

[7.68Mcps TDD] This tagging of a word indicates that the word preceding the tag "[7.68Mcps TDD]" applies only to 7.68Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[7.68Mcps TDD]" and the section following the heading applies only to 7.68Mcps TDD.

[FDD - …] This tagging indicates that the enclosed text following the "[FDD – " applies only to FDD. Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.

[TDD - …] This tagging indicates that the enclosed text following the "[TDD – " applies only to TDD including 3.84Mcps TDD, 7.68Mcps TDD and 1.28Mcps TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.

[3.84Mcps TDD - …] This tagging indicates that the enclosed text following the "[3.84Mcps TDD – " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 3.84Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.

[1.28Mcps TDD - …] This tagging indicates that the enclosed text following the "[1.28Mcps TDD – " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps TDD specific paragraphs.

[7.68Mcps TDD - …] This tagging indicates that the enclosed text following the "[7.68Mcps TDD – " applies only to 7.68Mcps TDD. Multiple sequential paragraphs applying only to 7.68Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 7.68Mcps TDD specific paragraphs.

Procedure When referring to an elementary procedure in the specification, the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.

Message When referring to a message in the specification, the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.

IE When referring to an information element (IE) in the specification, the *Information Element Name* is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. *Transport Format Set* IE.

Value of an IE When referring to the value of an information element (IE) in the specification, the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)".

# 5 RNSAP Services

## 5.1 RNSAP Procedure Modules

The Iur interface RNSAP procedures are divided into five modules as follows:

1. RNSAP Basic Mobility Procedures;
2. RNSAP Dedicated Procedures;
3. RNSAP Common Transport Channel Procedures;
4. RNSAP Global Procedures;
5. RNSAP MBMS Procedures.

The Basic Mobility Procedures module contains procedures used to handle the mobility within UTRAN, within GERAN and between UTRAN and GERAN.

The Dedicated Procedures module contains procedures that are used to handle DCHs, [FDD – F-DPCH,] [TDD – DSCHs, USCHs], HS-DSCH and E-DCH between two RNSs. If procedures from this module are not used in a specific Iur, then the usage of DCH, [FDD – F-DPCH,] [TDD – DSCH, USCH,] HS-DSCH and E-DCH traffic between corresponding RNSs is not possible.

The Common Transport Channel Procedures module contains procedures that are used to control common transport channel data streams (excluding the DSCH, HS-DSCH and USCH) over Iur interface.

The Global Procedures module contains procedures that are not related to a specific UE. The procedures in this module are in contrast to the above modules involving two peer CRNCs/CBSSs.

The MBMS Procedures module contains procedures that are specific to MBMS and used for cases that cannot be handled by other modules.

## 5.2 Parallel Transactions

Unless explicitly indicated in the procedure specification, at any instance in time one protocol peer shall have a maximum of one ongoing RNSAP Dedicated procedure related to a certain UE.

# 6 Services Expected from Signalling Transport

The signalling transport shall provide two different service modes for the RNSAP.

1. Connection oriented data transfer service. This service is supported by a signalling connection between two RNCs. It shall be possible to dynamically establish and release signalling connections based on the need. Each active UE shall have its own signalling connection. The signalling connection shall provide in sequence delivery of RNSAP messages. RNSAP shall be notified if the signalling connection breaks.

2. Connectionless data transfer service. RNSAP shall be notified in case a RNSAP message did not reach the intended peer RNSAP entity.

# 7 Functions of RNSAP

The RNSAP protocol provides the following functions:

- Radio Link Management. This function allows the SRNC to manage radio links using dedicated resources in a DRNS;

- Physical Channel Reconfiguration. This function allows the DRNC to reallocate the physical channel resources for a Radio Link;

- Radio Link Supervision. This function allows the DRNC to report failures and restorations of a Radio Link;

- Compressed Mode Control [FDD]. This function allows the SRNC to control the usage of compressed mode within a DRNS;

- Measurements on Dedicated Resources. This function allows the SRNC to initiate measurements on dedicated resources in the DRNS. The function also allows the DRNC to report the result of the measurements;

- DL Power Drifting Correction [FDD]. This function allows the SRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links;

- DCH Rate Control. This function allows the DRNC to limit the rate of each DCH configured for the Radio Link(s) of a UE in order to avoid congestion situations in a cell;

- CCCH Signalling Transfer. This function allows the SRNC and DRNC to pass information between the UE and the SRNC on a CCCH controlled by the DRNS;

- GERAN Signalling Transfer. This function allows the SBSS and DBSS, the SRNC and DBSS or the SBSS and DRNC to pass information between the UE/MS and the SRNC/SBSS on an SRB2/CCCH controlled by the DBSS/DRNC;

- Paging. This function allows the SRNC/SBSS to page a UE in a URA/GRA or a cell in the DRNS;

- Common Transport Channel Resources Management. This function allows the SRNC to utilise Common Transport Channel Resources within the DRNS;

- Relocation Execution. This function allows the SRNC/SBSS to finalise a Relocation previously prepared via other interfaces;

- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.

- DL Power Timeslot Correction [TDD]. This function enables the DRNS to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.

- Measurements on Common Resources. This function allows an RNC/BSS to request from another RNC/BSS to initiate measurements on Common Resources. The function also allows the requested RNC/BSS to report the result of the measurements.

- Information Exchange. This function allows an RNC to request from another RNC the transfer of information. The function also allows the requested RNC to report the requested information.

- Resetting the Iur. This function is used to completely or partly reset the Iur interface.

- UE Measurement Forwarding[TDD]. This function allows the DRNC to request and receive UE measurements from the SRNC.

- Tracing. This function allows the SRNC to activate or deactivate trace in a DRNC.

- MBMS UE Linking/De-linking. This function allows the SRNC to provide/update/remove the UE Link to/in/from the DRNC.

- MBMS URA Linking/De-linking. This function allows the SRNC to provide/update/remove the URA Link to/in/from the DRNC.

- MBMS Channel Type Indication. This function allows the DRNC to indicate to the SRNC the selected channel type for an MBMS bearer service within certain cells in the DRNS.

- MBMS Preferred Frequency Layer Indication. This function allows the DRNC to indicate to the SRNC the preferred frequency layer for an MBMS bearer service within certain cells in the DRNS.

- MBMS MCCH Information Control. This function allows an MRNC to distribute the MCCH Information to CRNC within the MBSFN cluster.

- Direct Information Transfer. This function allows an RNC to transfer information to another RNC.

- Relocating serving RNC. This function enables to change the serving RNC functionality as well as the related Iu resources (RAB(s) and Signalling connection) from one RNC to another.

- Exchanging information about the secondary UL frequency. This function allows the SRNC to transfer information about the secondary UL frequency to the DRNS and the DRNS to transfer information about the secondary UL frequency to SRNC in Dual-Cell E-DCH operation.

The mapping between the above functions and RNSAP elementary procedures is shown in the Table 1.

**Table 1: Mapping between functions and RNSAP elementary procedures**

| Function | Elementary Procedure(s) |
|---|---|
| Radio Link Management | a) Radio Link Setup<br>b) Radio Link Addition<br>c) Radio Link Deletion<br>d) Unsynchronised Radio Link Reconfiguration<br>e) Synchronised Radio Link Reconfiguration Preparation<br>f) Synchronised Radio Link Reconfiguration Commit<br>g) Synchronised Radio Link Reconfiguration Cancellation<br>h) Radio Link Pre-emptioni) Radio Link Activation<br>j) Radio Link Parameter Update |
| Physical Channel Reconfiguration | Physical Channel Reconfiguration |
| Radio Link Supervision | a) Radio Link Failure<br>b) Radio Link Restoration |
| Compressed Mode Control [FDD] | a) Radio Link Setup<br>b) Radio Link Addition<br>c) Compressed Mode Command<br>d) Unsynchronised Radio Link Reconfiguration<br>e) Synchronised Radio Link Reconfiguration Preparation<br>f) Synchronised Radio Link Reconfiguration Commit<br>g) Synchronised Radio Link Reconfiguration Cancellation |
| Measurements on Dedicated Resources | a) Dedicated Measurement Initiation<br>b) Dedicated Measurement Reporting<br>c) Dedicated Measurement Termination<br>d) Dedicated Measurement Failure |
| DL Power Drifting Correction [FDD] | Downlink Power Control |
| DCH Rate Control | a) Radio Link Setup<br>b) Radio Link Addition<br>c) Unsynchronised Radio Link Reconfiguration<br>d) Synchronised Radio Link Reconfiguration Preparation<br>e) Radio Link Congestion |
| CCCH Signalling Transfer | a) Uplink Signalling Transfer<br>b) Downlink Signalling Transfer |
| GERAN Signalling Transfer | a) GERAN Uplink Signalling Transfer<br>b) Downlink Signalling Transfer |
| Paging | Paging |
| Common Transport Channel Resources Management | a) Common Transport Channel Resources Initiation<br>b) Common Transport Channel Resources Release |
| Relocation Execution | Relocation Commit |
| Reporting of General Error Situations | Error Indication |
| Measurements on Common Resources | a) Common Measurement Initiation<br>b) Common Measurement Reporting<br>c) Common Measurement Termination<br>d) Common Measurement Failure |
| Information Exchange | a) Information Exchange Initiation<br>b) Information Reporting<br>c) Information Exchange Termination<br>d) Information Exchange Failure |
| DL Power Timeslot Correction [TDD] | Downlink Power Timeslot Control |
| Reset | Reset |
| UE Measurement Forwarding[TDD] | a) UE Measurement Initiation<br>b) UE Measurement Reporting<br>c) UE Measurement Termination<br>d) UE Measurement Failure |
| Trace | a) Iur Invoke Trace<br>b) Iur Deactivate Trace |

| Function | Elementary Procedure(s) |
|---|---|
| MBMS UE Linking/De-linking | a) Common Transport Channel Resources Initiation<br>b) Radio Link Setup<br>c) Downlink Signalling Transfer<br>d) MBMS Attach<br>e) MBMS Detach |
| MBMS Channel Type Indication | a) Direct Information Transfer<br>b) Uplink Signalling Transfer<br>c) Radio Link Setup<br>d) Radio Link Addition<br>e) Common Transport Channel Resources Initiation |
| MBMS Preferred Frequency Layer Indication | a) Direct Information Transfer<br>b) Radio Link Setup<br>d) Radio Link Addition |
| MBMS URA Linking/De-linking | a) Downlink Signalling Transfer<br>b) MBMS Attach<br>c) MBMS Detach |
| MBMS MCCH Information Control | a) MBSFN MCCH Information |
| Direct Information Transfer | a) Direct Information Transfer |
| Relocating serving RNC | a) Enhanced Relocation<br>b) Enhanced Relocation Cancel<br>c) Enhanced Relocation Signalling Transfer<br>d) Enhanced Relocation Release |
| Exchanging information about the secondary UL frequency [FDD] | a) Secondary UL Frequency Reporting<br>b) Secondary UL Frequency Update |

## 7.1 RNSAP functions and elementary procedures for Iur-g.

The functions and RNSAP elementary procedures, which are applicable on the Iur-g interface are shown in the Table 1A.

**Table 1A: RNSAP elementary procedures applicable on the Iur-g interface**

| Function | Elementary Procedure(s) |
|---|---|
| GERAN Signalling Transfer | a) GERAN Uplink Signalling Transfer<br>b) Downlink Signalling Transfer |
| Paging | Paging |
| Relocation Execution | Relocation Commit |
| Reporting of General Error Situations | Error Indication |
| Measurements on Common Resources | a) Common Measurement Initiation<br>b) Common Measurement Reporting<br>c) Common Measurement Termination<br>d) Common Measurement Failure |
| Information Exchange | a) Information Exchange Initiation<br>b) Information Reporting<br>c) Information Exchange Termination<br>d) Information Exchange Failure |

NOTE: In the connection with the functions related to the GERAN and UTRAN, the term RNC shall refer to RNC/BSS.

# 8 RNSAP Procedures

## 8.1 Elementary Procedures

In the following tables, all Eps are divided into Class 1 and Class 2 Eps.

**Table 2: Class 1 Elementary Procedures**

| Elementary Procedure | Initiating Message | Successful Outcome | Unsuccessful Outcome |
|---|---|---|---|
| | | Response message | Response message |
| Radio Link Setup | RADIO LINK SETUP REQUEST | RADIO LINK SETUP RESPONSE | RADIO LINK SETUP FAILURE |
| Radio Link Addition | RADIO LINK ADDITION REQUEST | RADIO LINK ADDITION RESPONSE | RADIO LINK ADDITION FAILURE |
| Radio Link Deletion | RADIO LINK DELETION REQUEST | RADIO LINK DELETION RESPONSE | |
| Synchronised Radio Link Reconfiguration Preparation | RADIO LINK RECONFIGURATION PREPARE | RADIO LINK RECONFIGURATION READY | RADIO LINK RECONFIGURATION FAILURE |
| Unsynchronised Radio Link Reconfiguration | RADIO LINK RECONFIGURATION REQUEST | RADIO LINK RECONFIGURATION RESPONSE | RADIO LINK RECONFIGURATION FAILURE |
| Physical Channel Reconfiguration | PHYSICAL CHANNEL RECONFIGURATION REQUEST | PHYSICAL CHANNEL RECONFIGURATION COMMAND | PHYSICAL CHANNEL RECONFIGURATION FAILURE |
| Dedicated Measurement Initiation | DEDICATED MEASUREMENT INITIATION REQUEST | DEDICATED MEASUREMENT INITIATION RESPONSE | DEDICATED MEASUREMENT INITIATION FAILURE |
| Common Transport Channel Resources Initialisation | COMMON TRANSPORT CHANNEL RESOURCES REQUEST | COMMON TRANSPORT CHANNEL RESOURCES RESPONSE | COMMON TRANSPORT CHANNEL RESOURCES FAILURE |
| Common Measurement Initiation | COMMON MEASUREMENT INITIATION REQUEST | COMMON MEASUREMENT INITIATION RESPONSE | COMMON MEASUREMENT INITIATION FAILURE |
| Information Exchange Initiation | INFORMATION EXCHANGE INITIATION REQUEST | INFORMATION EXCHANGE INITIATION RESPONSE | INFORMATION EXCHANGE INITIATION FAILURE |
| Reset | RESET REQUEST | RESET RESPONSE | |
| UE Measurement Initiation[TDD] | UE MEASUREMENT INITIATION REQUEST | UE MEASUREMENT INITIATION RESPONSE | UE MEASUREMENT INITIATION FAILURE |
| Enhanced Relocation | ENHANCED RELOCATION REQUEST | ENHANCED RELOCATION RESPONSE | ENHANCED RELOCATION FAILURE |

**Table 3: Class 2 Elementary Procedures**

| Elementary Procedure | Initiating Message |
|---|---|
| Uplink Signalling Transfer | UPLINK SIGNALLING TRANSFER INDICATION |
| GERAN Uplink Signalling Transfer | GERAN UPLINK SIGNALLING TRANSFER INDICATION |
| Downlink Signalling Transfer | DOWNLINK SIGNALLING TRANSFER REQUEST |
| Relocation Commit | RELOCATION COMMIT |
| Paging | PAGING REQUEST |
| Synchronised Radio Link Reconfiguration Commit | RADIO LINK RECONFIGURATION COMMIT |
| Synchronised Radio Link Reconfiguration Cancellation | RADIO LINK RECONFIGURATION CANCEL |
| Radio Link Failure | RADIO LINK FAILURE INDICATION |
| Radio Link Restoration | RADIO LINK RESTORE INDICATION |
| Dedicated Measurement Reporting | DEDICATED MEASUREMENT REPORT |
| Dedicated Measurement Termination | DEDICATED MEASUREMENT TERMINATION REQUEST |
| Dedicated Measurement Failure | DEDICATED MEASUREMENT FAILURE INDICATION |
| Downlink Power Control [FDD] | DL POWER CONTROL REQUEST |
| Compressed Mode Command [FDD] | COMPRESSED MODE COMMAND |
| Common Transport Channel Resources Release | COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST |
| Error Indication | ERROR INDICATION |
| Downlink Power Timeslot Control [TDD] | DL POWER TIMESLOT CONTROL REQUEST |
| Radio Link Pre-emption | RADIO LINK PREEMPTION REQUIRED INDICATION |
| Radio Link Congestion | RADIO LINK CONGESTION INDICATION |
| Common Measurement Reporting | COMMON MEASUREMENT REPORT |
| Common Measurement Termination | COMMON MEASUREMENT TERMINATION REQUEST |
| Common Measurement Failure | COMMON MEASUREMENT FAILURE INDICATION |
| Information Reporting | INFORMATION REPORT |
| Information Exchange Termination | INFORMATION EXCHANGE TERMINATION REQUEST |
| Information Exchange Failure | INFORMATION EXCHANGE FAILURE INDICATION |
| MBMS Attach | MBMS ATTACH COMMAND |
| MBMS Detach | MBMS DETACH COMMAND |
| Radio Link Parameter Update | RADIO LINK PARAMETER UPDATE INDICATION |
| UE Measurement Reporting [TDD] | UE MEASUREMENT REPORT |
| UE Measurement Termination [TDD] | UE MEASUREMENT TERMINATION REQUEST |
| UE Measurement Failure [TDD] | UE MEASUREMENT FAILURE INDICATION |
| Iur Invoke Trace | IUR INVOKE TRACE |
| Iur Deactivate Trace | IUR DEACTIVATE TRACE |
| Direct Information Transfer | DIRECT INFORMATION TRANSFER |
| Enhanced Relocation Cancel | ENHANCED RELOCATION CANCEL |
| Enhanced Relocation Signalling Transfer | ENHANCD RELOCATION SIGNALLING TRANSFER |
| Enhanced Relocation Release | ENHANCD RELOCATION RELEASE |
| MBSFN MCCH Information | MBSFN MCCH INFORMATION |
| Secondary UL Frequency Reporting [FDD] | SECONDARY UL FREQUENCY REPORT |
| Secondary UL Frequency Update[FDD] | SECONDARY UL FREQUENCY UPDATE INDICATION |

# 8.2 Basic Mobility Procedures

## 8.2.1 Uplink Signalling Transfer

### 8.2.1.1 General

The procedure is used by the DRNC to forward a Uu message received on the CCCH to the SRNC.

This procedure shall use the connectionless mode of the signalling bearer.

### 8.2.1.2 Successful Operation

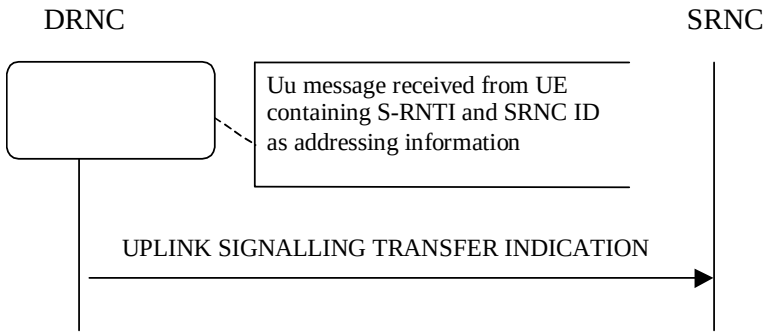



**Figure 1: Uplink Signalling Transfer procedure, Successful Operation**

When the DRNC receives an Uu message on the CCCH in which the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, DRNC shall send the UPLINK SIGNALLING TRANSFER INDICATION message to the SRNC identified by the SRNC-ID received from the UE.

If at least one URA Identity is being broadcast in the cell where the Uu message was received (the accessed cell), the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the accessed cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA where the Uu message was received in the *URA Information* IE in the UPLINK SIGNALLING TRANSFER INDICATION message.

The DRNC shall include in the message the C-RNTI that it allocates to identify the UE in the radio interface in the accessed cell. If there is no valid C-RNTI for the UE in the accessed cell, the DRNS shall allocate a new C-RNTI for the UE [FDD – and in case Enhanced FACH operation is activated in the accessed cell the DRNC shall allocate the HS-DSCH-RNTI to the UE and shall include the *HS-DSCH-RNTI* IE in the message. And in case Common E-DCH operation is activated in the accessed cell the DRNC shall include the E-RNTI received from Node B and shall include the *E-RNTI* IE in the message]. [1.28Mcps TDD – and in case Enhanced FACH operation is activated in the accessed cell the DRNC shall allocate the HS-DSCH-RNTI to the UE and shall include the *HS-DSCH-RNTI* IE in the message and the DRNC shall include the E-RNTI received from Node B and shall include the *E-RNTI* IE in the message]. If the DRNS allocates a new C-RNTI it shall also release any C-RNTI previously allocated for the UE.

If the DRNS has any RACH and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and/or transport bearer are different from those in the old cell, then the DRNS shall not include the *Common Transport Channel Resources Initialisation Not Required* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition the DRNS shall release these RACH and/or FACH resources in old cell.

If the DRNS has any RACH and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and transport bearer are the same as in the old cell, there is no need for Common Transport Channel Resources Initialisation to be initiated. In that case, DRNC may include the *Common Transport Channel Resources Initialisation Not Required* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition, the DRNS shall move these RACH and/or FACH resources to the new cell. If no Common Transfer Channel Resources Initialisation procedure is executed, the currently applicable Mac SDU sizes, flow control settings (including credits) and transport bearer shall continue to be used while the UE is in the new cell.

If no context exists for this UE in the DRNC, the DRNC shall create a UE Context for this UE, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DRNC is connected to in the UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE.

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE, in which the Uu message was received in the UPLINK SIGNALLING TRANSFER INDICATION message. If the DRNC includes the *Cell GA Additional Shapes* IE in the UPLINK SIGNALLING TRANSFER INDICATION message, it shall also include the *Cell GAI* IE.

[FDD – The DRNC shall include the *DPC Mode Change Support Indicator* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports DPC mode change.]

The DRNC shall include [FDD – the *Cell Capability Container FDD* IE] [3.84Mcps TDD – the *Cell Capability Container TDD* IE] [1.28Mcps TDD – the *Cell Capability Container TDD LCR* IE] [7.68Mcps TDD – the *Cell Capability Container 7.68Mcps TDD* IE] [FDD – and/or the *Cell Capability Container Extension FDD* IE] in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports any functionalities listed in [FDD – 9.2.2.D] [3.84Mcps TDD – 9.2.3.1a] [1.28Mcps TDD – 9.2.3.1b] [7.68Mcps TDD – 9.2.3.31] [FDD – 9.2.2.123].

[FDD – If the cell is multicell adjacent carrier operation capable and if the cell can be the serving HS-DSCH then the possible cells to serve multicell adjacent carrier operation (same sector) that can act as secondary serving HS-DSCH shall be listed in the *Secondary Serving Cell List* IE. If the *Secondary Serving Cell List* IE is not present, the multicell (adjacent carrier operation) capable cell can only serve as a secondary serving HS-DSCH cell in single band operation.]

[FDD – If the cell is dual band capable and if the cell can be the serving HS-DSCH then the possible cells to serve dual band carrier operation (same sector) that can act as secondary serving HS-DSCH shall be listed in the *Dual Band Secondary Serving Cell List* IE. If the *Dual Band Secondary Serving Cell List* IE is not present, the dual band capable cell can only serve as a secondary serving HS-DSCH cell in dual band operation.]

If MOCN or GWCN network sharing configuration is used then the DRNC shall include the broadcasted PLMN identities of the concerned cell in the *Multiple PLMN List* IE in the UPLINK SIGNALLING TRANSFER INDICATION message.

If available, the DRNC shall include the *SNA Information* IE for the concerned cell.

When receiving the *SNA Information* IE, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

[FDD – The DRNC shall include the *Cell Portion ID* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if available.]

[1.28 Mcps TDD – The DRNC shall include the *Cell Portion LCR ID* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if available.]

[FDD – If the propagation delay value exceeds the range of the *Propagation Delay* IE then the DRNC shall if supported include the *Extended Propagation Delay* IE and set the *Propagation Delay* IE to its maximum value.]

If the *D-RNTI* IE is not to be included in the UPLINK SIGNALLING TRANSFER INDICATION message and the UE Link is currently stored in the UE Context in the DRNC, the DRNC shall assume that the UE changes the cell under which it camps in the DRNS (see ref. [50], section 5.1.6 on intra-DRNC cell change). In this case, if an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in the cell identified by the *UC-ID* IE, the DRNC shall include in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE for each of these active MBMS bearer services. Or else, if the DRNC receives a Uu message on the CCCH in which the short identities for MBMS Selected Services are included, and the Uu message requests for MBMS PtP radio bearer establishment, the DRNC shall determine which TMGIs correspond with the short identities and shall include in the *Active MBMS Bearer Service List* IE the *TMGI* IE together with the *Transmission Mode* IE for each of these MBMS Selected Services.

If the CCCH message contains *Measurement results for monitored cells on non-used frequencies* IE in *Measured Result on RACH* IE, the DRNC may include in the UPLINK SIGNALLING TRANSFER INDICATION message the *Inter-frequency Cell List* IE for each of the measured inter-freqeuncy cells. The order of cells in *Measurement results for monitored cells on non-used frequencies* IE in the CCCH message shall be preserved in *Inter-frequency Cell List* IE. If the *UL UARFCN* IE in the *Inter-frequency Cell List* IE is not present, the default duplex distance defined for the operating frequency band shall be used in the SRNC (see ref. [43]).

[3.84 Mcps TDD – the DRNC shall include the *Rx Timing Deviation* IE unless the cell to which the CCCH message was sent is configured to use the extended timing advance in which case *Rx Timing Deviation 3.84Mcps Extended* IE shall be included.]

[7.68 Mcps TDD – the DRNC shall include the *Rx Timing Deviation 7.68Mcps* IE.]

#### 8.2.1.3 Abnormal Conditions

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## 8.2.1A GERAN Uplink Signalling Transfer

### 8.2.1A.1 General

The procedure is used by the DBSS to forward an Um message received on the SRB2 to the SBSS/SRNC. The procedure is also used by the DRNC to forward a Uu message received on the CCCH to the SBSS.

This procedure shall use the connectionless mode of the signalling bearer.

### 8.2.1A.2 Successful Operation

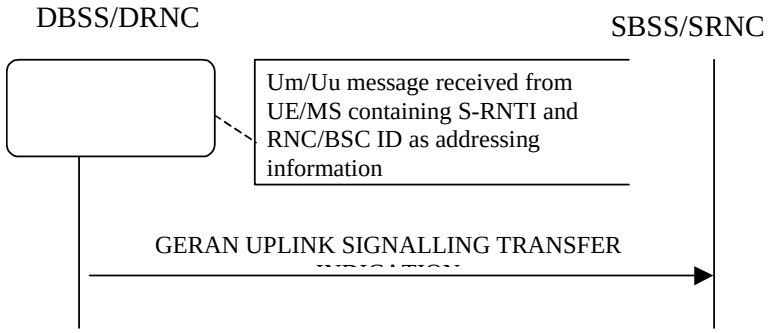



**Figure 1A: GERAN Uplink Signalling Transfer procedure, Successful Operation**

When the DBSS receives an Um message on the SRB2 in which the MS addressing information is G-RNTI, i.e. S-RNTI and BSC-ID, DBSS shall send the GERAN UPLINK SIGNALLING TRANSFER INDICATION message to the SBSS/SRNC identified by the BSC-ID received from the MS.

Alternatively, when the DRNC receives an Uu message on the CCCH in which the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, and in which the SRNC-ID points to a GERAN BSS, the DRNC shall send the GERAN UPLINK SIGNALLING TRANSFER INDICATION message to the SBSS identified by SRNC-ID received from the UE.

If at least one GRA/URA Identity is being broadcast in the cell where the Um/Uu message was received (the accessed cell), the DBSS/DRNC shall include a GRA/URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple GRA/URA Identities are being broadcast in the accessed cell, and the RNC/BSS Identity of all other RNC/BSSs that are having at least one cell within the GRA/URA where the Um/Uu message was received in the *URA Information* IE in the GERAN UPLINK SIGNALLING TRANSFER INDICATION message.

If no context exists for this UE/MS in the DBSS/DRNC, the DBSS/DRNC shall create a UE Context for this UE/MS, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DBSS/DRNC is connected to in the GERAN UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE/MS.

### 8.2.1A.3 Abnormal Conditions

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## 8.2.2 Downlink Signalling Transfer

### 8.2.2.1 General

The procedure is used by the SRNC to request to the DRNC the transfer of a Uu message on the CCCH in a cell. When used, the procedure is in response to a received Uplink Signalling Transfer procedure.

This procedure shall use the connectionless mode of the signalling bearer.

#### 8.2.2.1.1 Downlink Signalling Transfer for Iur-g

The procedure is used by the SRNC/SBSS to request to the DBSS the transfer of an Um message on the SRB2 in a cell.

The procedure is used by the SBSS to request to the DRNC the transfer of a Uu message on the CCCH in a cell.

### 8.2.2.2 Successful Operation




**Figure 2: Downlink Signalling Transfer procedure, Successful Operation**

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC to the DRNC.

The message contains the Cell Identifier (C-ID) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

Upon receipt of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-ID* IE to the UE identified by the *D-RNTI* IE.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has no dedicated resources (DCH, [TDD – USCH and/or DSCH]) allocated for the UE, the DRNS shall release the D-RNTI, the UE Context and any RACH and FACH resources and any C-RNTI allocated to the UE Context upon receipt of the DOWNLINK SIGNALLING TRANSFER REQUEST message. If a UE Link is currently stored in the UE Context, the DRNC shall perform UE De-linking as specified in [50], section 5.1.6.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has dedicated resources allocated for the UE, the DRNS shall only release any RACH and FACH resources and any C-RNTI allocated to the UE Context upon receipt of the DOWNLINK SIGNALLING TRANSFER REQUEST message.

If the *MBMS Bearer Service List* IE is included and *URA-ID* IE is not included in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the DRNC shall perform the UE Linking as specified in [50], section 5.1.6.

If the *MBMS Bearer Service List* IE is included and the *URA-ID* IE is included in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the DRNC shall perform the URA Linking as specified in [50], section 5.1.10.

If the *MBMS Bearer Service List* IE is included and the *Old URA-ID* IE is included in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the DRNC shall perform URA De-linking for the URA identified by the *Old URA-ID* IE as specified in [50], section 5.1.10.

[FDD – If the *Enhanced PCH Capability* IE is included in the message, the DRNC should store the information. If the *Enhanced PCH Capability* IE is not included in the message, the DRNC shall use the information to release an RRC Connection for the UE in cells supporting Enhanced PCH.]

[1.28Mcps TDD – If the *Enhanced PCH Capability* IE is included in the message, the DRNC should store the information. If the *Enhanced PCH Capability* IE is not included in the message, the DRNC shall use the information to release an RRC Connection for the UE in cells supporting Enhanced PCH.]

#### 8.2.2.2.1 Successful Operation for Iur-g

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC/SBSS to the DBSS or by the SBSS to the DRNC.

The message contains the Cell Identifier (C-*ID*) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

Upon receipt of the message, the DBSS shall send the L3 Information on the SRB2 in the cell indicated by the *C-ID* IE to the UE/MS identified by the *D-RNTI* IE.

Upon receipt of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-ID* IE to the UE/MS identified by the *D-RNTI* IE.

### 8.2.2.3 Abnormal Conditions

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC than the cell identified by the *C-ID* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

#### 8.2.2.3.1 Abnormal Conditions for Iur-g

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC/DBSS than the cell identified by the *C-ID* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

If the DRNC receives from the SBSS the DOWNLINK SIGNALLING TRANSFER REQUEST message, in which the *D-RNTI Release Indication* IE is set to “not Release D-RNTI”, the DRNC shall ignore this IE and release the D-RNTI.

If the DBSS receives from the SBSS/SRNC the DOWNLINK SIGNALLING TRANSFER REQUEST message, in which the *D-RNTI Release Indication* IE is set to “not Release D-RNTI”, the DBSS shall ignore this IE and release the D-RNTI.

## 8.2.3 Relocation Commit

### 8.2.3.1 General

The Relocation Commit procedure is used by source RNC to execute the Relocation. This procedure supports the Relocation procedures described in [2].

This procedure shall use the signalling bearer mode specified below.

### 8.2.3.2 Successful Operation




**Figure 3: Relocation Commit procedure, Successful Operation**

The source RNC sends the RELOCATION COMMIT message to the target RNC to request the target RNC to proceed with the Relocation. When the UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is

required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE Context in the DRNC.

Upon receipt of the RELOCATION COMMIT message from the source RNC the target RNC finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC shall use this information when finalising the Relocation.

#### 8.2.3.2.1 Successful Operation for Iur-g

The source RNC/BSS sends the RELOCATION COMMIT message to the target RNC/BSS to request the target RNC/BSS to proceed with the Relocation.

The message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE/MS context in the DBSS.

Upon receipt of the RELOCATION COMMIT message from the source RNC/BSS, the target RNC/BSS finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC/BSS shall use this information when finalising the Relocation.

### 8.2.3.3 Abnormal Conditions

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## 8.2.4 Paging

### 8.2.4.1 General

This procedure is used by the SRNC to indicate to a CRNC that a UE shall be paged in a cell or URA that is under the control of the CRNC.

This procedure shall use the connectionless mode of the signalling bearer.

### 8.2.4.2 Successful Operation




**Figure 4: Paging procedure, Successful Operation**

The procedure is initiated with a PAGING REQUEST message sent from the SRNC to the CRNC.

If the message contains the *C-ID* IE, the CRNC shall page in the indicated cell. Alternatively, if the message contains the *URA-ID* IE, the CRNC shall page in all cells that it controls in the indicated URA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CRNC shall calculate the Paging Occasions from the *IMSI* IE and the *DRX Cycle Length Coefficient* IE according to specification in ref. [15] and apply transmission on PICH and PCH [FDD – or HS-DSCH] [1.28Mcps TDD – or HS-DSCH] accordingly.

[FDD – If the PAGING REQUEST message includes the *Enhanced PCH Capability* IE, the CRNC shall use the information to page the UE in cells supporting Enhanced PCH.]

[1.28Mcps TDD – If the PAGING REQUEST message includes the *Enhanced PCH Capability* IE, the CRNC shall use the information to page the UE in cells supporting Enhanced PCH.]

#### 8.2.4.2.1 Successful Operation for Iur-g

The procedure is initiated with a PAGING REQUEST message sent from the SBSS to the CRNC/CBSS or from the SRNC to the CBSS.

If the message contains the *URA-ID* IE, the CRNC/CBSS shall page in all cells that it controls in the indicated URA/GRA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC/CBSS shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CBSS shall calculate the Paging Occasions from the *IMSI* IE and the *GERAN DRX Cycle Length Coefficient* IE according to specification in ref. [36] and apply transmission on PCCCH or PACCH accordingly.

### 8.2.4.3 Abnormal Conditions

#### 8.2.4.3.1 Abnormal Conditions for Iur-g

If the DRNC receives a PAGING REQUEST message from the SBSS, which contains the *C-ID* IE, the message shall be ignored.

If the DBSS receives a PAGING REQUEST message from the SBSS/SRNC, which contains the *C-ID* IE, the message shall be ignored.

## 8.2.5 MBSFN MCCH Information

### 8.2.5.1 General

The procedure is used by the MRNC to inform the CRNC of the MCCH configuration and scheduling information used in MRNC.

This procedure shall use the connectionless mode of the signalling bearer.

### 8.2.5.2 Successful Operation

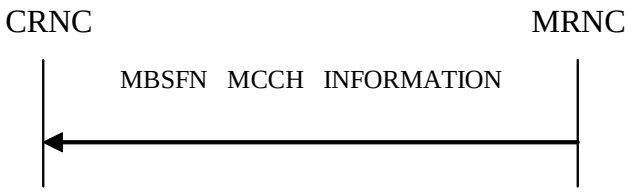



**Figure 4A: MBSFN MCCH Information procedure, Successful Operation**

The procedure is used for MBSFN operation when a MRNC is used.

The message contains the MCCH message list sent on the MRNC and the MCCH configuration information of the MRNC.

Upon receipt of the message, if the *MCCH Configuration* IE exists, the CRNC shall setup or reconfigure the MCCH of all cells in the MBSFN cluster with the configuration contained in this IE, and update the System Information of these cells.

The CRNC shall decode the *L3 Information* IE contained in the *MCCH Message List* IE and apply the RLC/MAC/PHY configuration specified by relative MCCH Message to setup the RB information of MTCH, and then send the *L3 Information* IE on the MCCH in the receiving sequence at the beginning of the first MCCH modification period following the CFN indicated by the *CFN* IE.

In case MRNC is used and TDM multiplexing is used over air interface, the *MBSFN Scheduling Transmission Time Interval info List* IE shall be contained to show the scheduling transmission time interval for MBMS service which is

configured with MBSFN TDM multiplexing. The CRNC shall schedule received data packets in the scheduling transmission time interval following the time point indicated by the timestamp.

#### 8.2.5.3 Abnormal Conditions

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## 8.3 Dedicated Procedures

### 8.3.1 Radio Link Setup

#### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

#### 8.3.1.2 Successful Operation

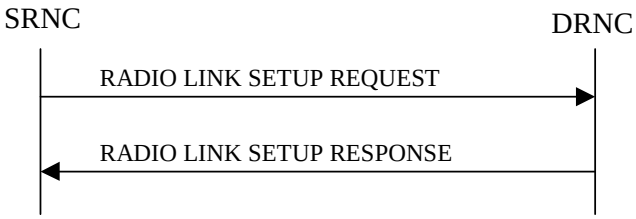



**Figure 5: Radio Link Setup procedure: Successful Operation**

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific UE-UTRAN connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request establishment of the radio link(s). The Radio Link Setup procedure is initiated with this RADIO LINK SETUP REQUEST message sent from the SRNC to the DRNC.

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request for a time period not to exceed the value of the *Allowed Queuing Time* IE before starting to execute the request.

If the *UE Aggregate Maximum Bit Rate* IE is contained in the RADIO LINK SETUP REQUEST message, the DRNS shall, if supported, store the received UE Aggregate Maximum Bit Rate parameters to control the aggregate data rate of non GBR traffic for this UE.

**Transport Channels Handling:**

**DCH(s):**

[TDD – If the *DCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DCHs according to the parameters given in the message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to “Uplink DCH only”, the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

[FDD – For each DCH which do not belong to a set of co-ordinated DCHs, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]

For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD – If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD – If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the DCH FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs.

The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise between different frames of the data frames of the DCHs in the downlink on the radio interface in congestion situations once the new RL(s) have been activated.

The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value "RRC".

If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related DCH or set of co-ordinated DCHs.

If the *DCH Information* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

- If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the Guaranteed Rate in the uplink of this DCH. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to only reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

- If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the Guaranteed Rate in the downlink of this DCH. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to only reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH, then the DRNC shall not establish a transport bearer for the concerned DCH and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK SETUP RESPONSE message.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH and:]

- [FDD – if the DRNC establishes a transport bearer for the concerned DCH, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH being established.]

- [FDD – if the DRNC does not establish a transport bearer for the concerned DCH, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK SETUP RESPONSE message.]

**[TDD – DSCH(s):]**

[TDD – If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall establish the requested DSCHs. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *DSCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DSCH. In addition, the DRNC shall send a valid set of *DSCH Scheduling Priority* IE and *MAC-c/sh SDU Length* IE parameters to the SRNC in the RADIO LINK SETUP RESPONSE message. If the *PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD – If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]

[TDD – The DRNC shall include the *DSCH Initial Window Size* IE in the RADIO LINK SETUP RESPONSE message for each DSCH, if the DRNS allows the SRNC to start transmission of MAC-c/sh SDUs before the DRNS has allocated capacity on user plane as described in [32].]

[TDD – If the RADIO LINK SETUP REQUEST message includes the *TNL QoS* IE in the *DSCH TDD Information* IE and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

**[TDD – USCH(s):]**

[TDD – The DRNS shall use the list of RB Identities in the *RB Info* IE in the *USCH information* IE to map each *RB Identity* IE to the corresponding USCH. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *USCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the USCH.]

[TDD – If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

[TDD – If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message and contains the *TNL QoS* IE, and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related USCH.]

[TDD – If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall establish the requested USCHs, and the DRNC shall provide the [3.84 Mcps TDD – *USCH Information Response* IE] [1.28 Mcps TDD – USCH Information Response LCR IE] [7.68 Mcps TDD – *USCH Information Response 7.68 Mcps* IE] in the RADIO LINK SETUP RESPONSE message.]

**[TDD – CCTrCH Handling:]**

[TDD – If the *UL CCTrCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD – If the *UL CCTrCH Information LCR* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall configure the uplink TPC step size according to the parameters given in the message.]

[TDD – If the *DL CCTrCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD – If the *TPC CCTrCH List* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the identified UL CCTrCHs with TPC according to the parameters given in the message.]

**HS-DSCH:**

If the *HS-DSCH Information* IE is present in the RADIO LINK SETUP REQUEST message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message. [FDD – The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.] [1.28Mcps TDD– The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.

- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.

- If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- If the RADIO LINK SETUP REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK SETUP REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to the value "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of

the corresponding peer I in RADIO LINK SETUP REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [TDD – The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD – *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [TDD – The DRNC shall include the [3.84 Mcps TDD – *HS-PDSCH Timeslot Specific Information Response* IE] [1.28 Mcps TDD – *HS-PDSCH Timeslot Specific Information Response LCR* IE] [7.68 Mcps TDD – *HS-PDSCH Timeslot Specific Information Response* IE] in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the RADIO LINK SETUP RESPONSE message.]

- If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].

- [FDD – If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.]

- [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then]

  - [FDD – The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

  - [FDD – The DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

  - [FDD – If the *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

- [1.28 Mcps TDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH TDD Information* IE, then]
  - [1.28 Mcps TDD – The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]
  - [1.28 Mcps TDD – The DRNS shall decide the SF mode for HS-PDSCH dual stream and include the *MIMO SF Mode for HS-PDSCH dual stream* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]
- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK SETUP RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]
- [FDD – If the *UE with enhanced HS-SCCH support indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may use:]
  - [FDD – a different HS-SCCH in consecutive TTIs for this UE]
  - [FDD – HS-SCCH orders for the case of HS-SCCH-less operation to this UE]
- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH FDD Information* IE the DRNS may use the supported HSDPA functions for this UE.
- [FDD – The DRNS shall include the *SixtyfourQAM DL Support Indicator* IE in the RADIO LINK SETUP RESPONSE message. This *SixtyfourQAM DL Support Indicator* IE is related to the HS-DSCH Radio Link.]
- [1.28 Mcps TDD – The DRNS shall include the *SixtyfourQAM DL Support Indicator* IE in the RADIO LINK SETUP RESPONSE message.]
- If the RADIO LINK SETUP REQUEST message includes the *DL RLC PDU Size Format* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, the *DL RLC PDU Size Format* IE may be used by the DRNS to determine the allocated capacity on user plane as described in [32].
- [FDD – If the RADIO LINK SETUP REQUEST message includes the *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *Priority Queue Information* IE in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, the DRNS shall, if supported, consider the data of the related HSDPA Priority Queue for UE Aggregate Maximum Bit Rate Enforcement.]
- [FDD – If the *Single Stream MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS shall activate the Single Stream MIMO for the HS-DSCH Radio Link.]
- [1.28 Mcps TDD – If the *UE TS0 Capability LCR* IE is included in the *HS-DSCH TDD Information* IE, then the DRNC may include the *TS0 HS-PDSCH Indication LCR* IE in the RADIO LINK SETUP RESPONSE message if HS-PDSCH resources could be allocated on TS0 for the UE.]

**[FDD – Secondary Serving HS-DSCH:]**

[FDD – If the *Additional HS Cell Information RL Setup* IE is present in the RADIO LINK SETUP REQUEST message, then:]

- [FDD – The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE. Non cell specific secondary serving Radio Link and non

cell specific secondary serving HS-DSCH parameters take the same values as for the serving HS-DSCH cell.]

- [FDD – The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Secondary Serving Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any secondary serving HS-SCCH transmission to this UE.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Secondary Serving Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS shall activate the MIMO mode for the secondary serving HS-DSCH Radio Link and the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO for the secondary serving HS-DSCH Radio Link and include the *MIMO Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If the *Single Stream MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS shall activate the Single Stream MIMO mode for the secondary serving HS-DSCH Radio Link.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the secondary serving HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the secondary serving HS-DSCH Radio Link.]

- [FDD – If Sixtyfour QAM will not be used for the secondary serving HS-DCSH, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message if it decides to use the octet aligned table defined in [41] for the secondary serving HS-DSCH Transport Block Size signalling.]

- [FDD – The DRNS shall include the *SixtyfourQAM DL Support Indicator* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

**[FDD – E-DCH:]**

[FDD – If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DCH Minimum Set E-TFCI Validity Indicator* IE the DRNS shall ignore the value in *E-DCH Minimum Set E-TFCI* IE. If the *E-*

*DCH Minimum Set E-TFCI validity indicator* IE is absent DRNS shall use the value for the related resource allocation operation.]

[FDD – If the *E-TFCS Information IE in the E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the DRNS shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the DRNS shall use the E-DPDCH power extrapolation formula defined in [10].]

[FDD – If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the DRNS shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the DRNS shall use the value "127" in the algorithm defined in [10].]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DPCH Information* IE, which contains the *Minimum Reduced E-DPDCH Gain Factor* IE, then the DRNS shall use the value to determine the applicable minimum gain factor ($\beta_{ed,k,reduced,min}$) defined in [10]. For the case the *Minimum Reduced E-DPDCH Gain Factor* IE is not available for the UE Context, the DRNS may use the default value defined in [16]. ]

[FDD – If the *E-DCH FDD Information* IE is present in the RADIO LINK SETUP REQUEST message then:]

- [FDD – The DRNS shall setup the requested E-DCH resources on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *RL specific E-DCH Information* IE for an E-DCH MAC-d flow, then if the *Transport Bearer Not Requested Indicator* IE is not included for this E-DCH MAC-d flow, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow. The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for every E-DCH MAC-d flow being established for which the *Transport Bearer Not Requested Indicator* IE was not included.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for an E-DCH MAC-d flow, then the DRNC shall not establish a transport bearer for the concerned E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for an E-DCH MAC-d flow and:]

  - [FDD – if the DRNC establishes a transport bearer for the concerned E-DCH MAC-d flow, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the E-DCH MAC-d flow being established.]

  - [FDD – if the DRNC does not establish a transport bearer for the concerned E-DCH MAC-d flow, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK SETUP RESPONSE message.]

- [FDD – The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flow Specific Information* IE

in the *E-DCH FDD Information* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE, the DRNS shall, if supported, consider the data of the related E-DCH Logical Channel for UE Aggregate Maximum Bit Rate Enforcement.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel and use the indicated format in user plane frame structure for E-DCH channels [32] and MAC [41].]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD – If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD – If the *TNL QoS* IE is included for a E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD – The DRNC may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence IE* and the DRNC may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message, for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

  [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD – If the RADIO LINK SETUP REQUEST message contains the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this DRNS:]

  - [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both and include these E-RNTI identifiers and the Channelisation Code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *RL Information Response* IE for the indicated RL in the RADIO LINK SETUP RESPONSE message.]

  - [FDD – The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK SETUP RESPONSE message for the initial grant for the serving E-DCH RL.]

  - [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If a serving cell change is performed the RADIO LINK SETUP RESPONSE message may contain invalid data (see 9.2.2.4C).]

- [FDD – If the DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

- [FDD – The DRNS may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK SETUP RESPONSE message for the serving E-DCH RL.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *Bundling Mode Indicator* IE for a E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

  - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

**[FDD – Additional E-DCH Setup:]**

[FDD – If the *Additional E-DCH Cell Information RL Setup Req* IE is present in the RADIO LINK SETUP REQUEST message, then the *Additional E-DCH Cell Information Setup* IE defines the new configuration and then:]

- [FDD – The DRNS shall setup the E-DCH on the secondary uplink frequency and setup the requested E-DCH resources on the Radio Links and in the cells indicated by the *E-DCH Additional RL ID* IE and the *C-ID* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE. Non cell

specific Radio Link related parameters and non cell specific E-DPCH, UL DPCH, E-DCH and F-DPCH parameters shall take the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – If the *UL SIR Target* IE in the *UL DPCH Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE and/or the *DL Power Balancing Information* IE and/or the *Minimum Reduced E-DPDCH Gain Factor* IE in the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE are present, the DRNS shall use the information in the same same way as for the information used on Primary uplink frequency.]

- [FDD – If the *Secondary UL Frequency Activation State* IE is present in the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE, the DRNS shall use the information as initial activation state of the Radio Links on the secondary uplink frequency.]

- [FDD – If the *Propagation Delay* IE, the *Initial DL Tx Power* IE, *Primary CPICH Ec/No* IE, the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE and/or the *E-HICH Power Offset* IE is included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If the *Extended Propagation Delay* IE and/or *Enhanced Primary CPICH Ec/No* IE is included in the *Multicell E-DCH RL Specific Information* IE in the *Additional E-DCH Secondary RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If the *F-DPCH Slot Format Support Request* IE in the *F-DPCH Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE is included, the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Respone* IE in the RADIO LINK SETUP RESPONSE message. If the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE includes the *F-DPCH Slot Format* IE, the DRNS may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]

- [FDD – If the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the *E-DCH Maximum Bitrate* IE, the *E-DCH Minimum Set E-TFCI* IE and/or the *E-DCH Processing Overload Level* IE are present in the *Additional E-DCH FDD Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in same way as for the information used on Primary uplink frequency.]

- [FDD – If the *Multicell E-DCH Transport Bearer Mode* IE for an Additional E-DCH to be Setup is set to "Separate Iur Transport Bearer Mode" the DRNS shall use this mode in the new configuration and apply separate transport bearers for the MAC-d flows.]

- [FDD – if the *Multicell E-DCH Transport Bearer Mode* IE for an Additional E-DCH to be Setup is set to "UL Flow Multiplexing Mode" the DRNS shall use this mode in the new configuration and multiplex MAC-d flows on the transport bearers.]

- [FDD – if Separate Iur Transport Bearer Mode is used in the new configuration, then:]

  - [FDD – The DRNS shall follow the rules defined in this procedure for single carrier mode of operation for establishment of the transport bearer for a MAC-d flow and use the *Transport Bearer Not Requested Indicator* IE in the *RL Specific E-DCH Information* IE in the *RL Information* IE received for the corresponding Radio Link(s) of the Primary Uplink Frequency to determine the transport bearer configuration in the new configuration for the radio links of the Secondary Uplink Frequency.]

  - [FDD – If the *Transport Layer Address* IE and *Binding ID* IE is included for an E-DCH MAC-d flow in the *Additional E-DCH MAC-d Flows Specific Information* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, then the DRNS may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the

concerned E-DCH MAC-d flow. If the DRNS establishes a transport bearer for the concerned E-DCH MAC-d flow the DRNS shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE in the *Additional E-DCH MAC-d Flow Specific Information Response* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE for establishment of a transport bearer for every E-DCH MAC-d flow being established.]

- [FDD – If activation of power balancing for the Additional E-DCH RL by the RADIO LINK SETUP REQUEST message is supported by the DRNS, the DRNS shall include the *DL Power Balancing Activation Indicator* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – For each Additional E-DCH RL not having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall set the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message to a value that uniquely identifies the RL as a RL Set within the UE Context. The generation of E-HICH related information for Additional E-DCH RLs in different RL Sets shall not be common.]

- [FDD – For all Additional E-DCH RLs having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall assign to each Additional E-DCH RL the same value for the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message. This value shall uniquely identify these Additional E-DCH RLs as members of the same RL Set within the UE Context. The generation of E-HICH information for all Additional E-DCH RLs in a RL Set shall be common.]

- [FDD – For each Additional E-DCH RL which has or can have a common generation of E-RGCH information with another Additional E-DCH RL (current or future) when the DRNS would contain the Additional E-DCH serving RL, the DRNS shall set a same value to the *E-DCH RL Set ID* IE for the Additional E-DCH RL in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message]

- [FDD – For every additional E-DCH RL indicated in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the DRNS may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNS may include the corresponding *E-RGCH Signature Sequence* IE for each Additional E-DCH RL in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message and if DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

- [FDD – If the Additional Serving E-DCH Radio Link is configured in the DRNS, then:]

  - [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

  - [FDD – The DRNS may include in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the Additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE.]

  - [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

  - [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the DRNS shall activate the resources that are allocated for the new additional

serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC. If the *Serving Cell Change CFN* IE is not included then the DRNS shall activate immediately the resources that are allocated for the new additional serving E-DCH Radio Link]

- [FDD – If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNS shall include in the RADIO LINK SETUP RESPONSE message the *Primary Scrambling Code* IE, the *UL UARFCN* IE and the *DL UARFCN* IE for the secondary UL frequency in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link on the secondary UL frequency, the DRNS shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE RADIO LINK SETUP RESPONSE message.]

- [FDD – If Secondary CPICH may be used as a Phase Reference for this Radio Link on the secondary UL frequency, the DRNS shall include the *Secondary CPICH Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP RESPONSE message. If the DRNS doesn't include the *Secondary CPICH Information* IE, it shall not include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used".]

**[FDD – E-DCH –HS-DSCH:]**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *DCH Indicator For E-DCH-HSDPA Operation* IE, then the DRNS shall ignore the *DCH Information* IE in the RADIO LINK SETUP REQUEST message.]

**Physical Channels Handling:**

**[FDD – Compressed Mode:]**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or the last Radio Link is deleted.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* IE refers to latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD – If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD – If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD – For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD – If the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message and the UE Context is configured to use DPCH in the downlink, the DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE and the concerned UE Context is configured

to use F-DPCH in the downlink, the DRNS shall ignore, when activating the Transmission Gap Pattern Sequence(s), the information provided by the *Downlink Compressed Mode Method* IE if included for the concerned Transmission Gap Pattern Sequence(s).]

**[FDD – DL Code Information:]**

[FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2"*, and so on until the *p*th to "*PhCH number p*".]

**[FDD – Phase Reference Handling:]**

[FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the RADIO LINK SETUP RESPONSE message.]

[FDD – If Secondary CPICH may be used as a Phase Reference for this Radio Link, the DRNC shall include the *Secondary CPICH Information* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD – If the DRNC doesn't include the *Secondary CPICH Information* IE in the RADIO LINK SETUP RESPONSE message, it shall not include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the RADIO LINK SETUP RESPONSE message.]

**General:**

[FDD – If the *Propagation Delay* IE and optionally the *Extended Propagation Delay* IE are included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]

[FDD – If the received *Limited Power Increase* IE is set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

[TDD – If the RADIO LINK SETUP REQUEST message includes the [1.28 Mcps TDD and 3.84 Mcps TDD – *Maximum Number of DL Physical Channels per Timeslot* IE] [7.68 Mcps TDD – *Maximum Number of DL Physical Channels per Timeslot 7.68 Mcps* IE] the DRNC shall take this value into account when allocating physical resources, otherwise the DRNC can assume that this UE capability is consistent with the other signalled UE capabilities.]

[1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *Support for 8PSK* IE within the *DL Physical Channel Information* IE *or UL Physical Channel Information* IE, the DRNC shall take this into account in the specified direction when allocating physical resources, otherwise the DRNC can assume that this UE does not support 8PSK resource allocation.]

[1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *Support for PLCCH* IE within the *DL Physical Channel Information* IE , the DRNC shall take this into account when allocating PLCCH sequence numbers, otherwise the DRNC can assume that this UE does not support PLCCH.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *DL DPCH Information* IE, then the DRNS shall configure the concerned UE Context to use DPCH in the downlink, i.e. with a DL DPCCH and a DL DPDCH.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context to use F-DPCH in the downlink, i.e. with transmission of only the TPC field.]

- [FDD – If the *F-DPCH Information* IE includes the *F-DPCH Slot Format Support Request* IE, then the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the RADIO LINK SETUP RESPONSE message. If the *F-DPCH Information* IE includes the *F-DPCH Slot Format* IE, the DRNC may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]

**[FDD – E-DPCH Handling:]**

[FDD – If the *UL DPDCH Indicator for E-DCH operation* IE is included in the *UL DPCH Information* IE and set to "UL-DPDCH not present" the *Min UL Channelisation Code Length* IE, the *Puncture Limit* IE and

the *TFCS* IE, within the *UL DPCH Information* IE shall be ignored and no UL DPDCH resources shall be allocated.]

**[FDD – Continuous Packet Connectivity Handling:]**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DTX operation according to [10].]

- [FDD – If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DRX operation according to [10].]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectivity HS-SCCH less operation according to [10].]

- [FDD – The DRNS shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the DRNC shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK SETUP RESPONSE message.]

**[1.28 Mcps TDD – Continuous Packet Connectivity Handling:]**

[1.28 Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity DRX Information LCR* IE, then the DRNS shall take account into these parameters to decide the DRX operation related parameters and configure the concerned UE Context for DRX operation according to [21] and include the parameter(s) in the *Continuous Packet Connectivity DRX Information Response LCR* IE in the RADIO LINK SETUP RESPONSE message.]

[1.28 Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then:]

- [1.28 Mcps TDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for HS-DSCH Semi-Persistent scheduling operation according to [21].]

- [1.28 Mcps TDD – The DRNS shall allocate the HS-SICH information needed for HS-DSCH Semi-Persistent scheduling operation and include the *HS-DSCH Semi-Persistent scheduling Information Response LCR* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent Resource Reservation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall include *Allcoated HS-PDSCH Semi-persistent resource* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28 Mcps TDD – The DRNS shall include the *Buffer Size for HS-DSCH Semi-Persistent scheduling* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28 Mcps TDD – The DRNS shall include the *Number of Processes for HS-DSCH Semi-Persistent scheduling* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent scheduling operation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall apply this information for HS-DSCH Semi-Persistent scheduling operation.]

[1.28 Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Semi-Persistent scheduling Information LCR* IE, then:]

- [1.28 Mcps TDD – The DRNS shall configure the Serving E-DCH Radio Link indicated by the *E-DCH Serving RL* IE for E-DCH Semi-Persistent scheduling operation according to [21].]

- [1.28 Mcps TDD – If the *E-DCH Semi-Persistent Resource Reservation Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall include *Allcoated E-DCH Semi-persistent resource* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28 Mcps TDD – If the *E-DCH Semi-Persistent scheduling Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall apply this information for E-DCH Semi-Persistent scheduling operation.]

**Radio Link Handling:**

**Diversity Combination Control:**

[FDD – The *Diversity Control Field* IE indicates for each RL except for the first RL whether the DRNS shall combine the RL with any of the other RLs or not.]

- [FDD – If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.]

- [FDD – If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL.]

- [FDD – If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.]

[FDD – When an RL is to be combined, the DRNS shall choose which RL(s) to combine it with.]

[FDD – The *Diversity Control Field* IE is only applicable for DCHs, in case of E-DCH it shall always be assumed to be set to "May".]

[FDD – In the RADIO LINK SETUP RESPONSE message, the DRNC shall indicate for each RL with the Diversity Indication in the *RL Information Response* IE whether the RL is combined or not.]

- [FDD – In case of not combining with a RL previously listed in the RADIO LINK SETUP RESPONSE message or for the first RL in the RADIO LINK SETUP RESPONSE message, the DRNC shall]

  - [FDD – in case of requested DCHs, include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message for which the *Transport Bearer Not Requested Indicator* IE was not included the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

  - [FDD – in case of requested DCHs, include in the RADIO LINK SETUP RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every DCH for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK SETUP REQUEST message.]

  - [FDD – in case of a requested E-DCH, include in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE for which the *Transport Bearer Not Requested Indicator* IE was not included message the *Binding ID* IE and the *Transport Layer Address* IE for the establishment of transport bearers for every E-DCH MAC-d flow being established.]

  - [FDD – in case of a requested E-DCH, include in the RADIO LINK SETUP RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every E-DCH MAC-d flow for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK SETUP REQUEST message.]

- [FDD – Otherwise in case of combining, the *RL ID* IE indicates (one of) the RL(s) previously listed in this RADIO LINK SETUP RESPONSE message with which the concerned RL is combined and if the ALCAP is not used and the transport bearer for the DCH is already established, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK SETUP REQUEST message, shall not be used. In case of combining an E-DCH RL, one of the RLs previously listed in this RADIO LINK SETUP RESPONSE message including the *E-DCH FDD Information Response* IE and part of the same Radio Link Set shall be regarded as the RL with which the concerned E-DCH RL is combined and if the ALCAP is not used, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL SpecificE- DCH Information* IE included

in the *RL Information* IE for a specific RL in the RADIO LINK SETUP REQUEST message, shall not be used.]

[TDD – The DRNC shall always include in the RADIO LINK SETUP RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH, DSCH and USCH of the RL.]

In the case of a set of co-ordinated DCHs requiring a new transport bearer the *Binding ID* IE and the *Transport Layer Address* IE shall be included in the RADIO LINK SETUP RESPONSE message for only one of the DCHs in the set of co-ordinated DCHs [FDD – where the *Transport Bearer Not Requested Indicator* IE was not included].

**[FDD – Transmit Diversity:]**

[FDD – If the cell in which the RL is being set up is capable to provide Close loop Tx diversity, the DRNC shall include the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK SETUP RESPONSE message indicating the configured Closed loop timing adjustment mode of the cell.]

[FDD – When the *Diversity Mode* IE is set to "STTD", or "Closed loop mode1", the DRNC shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the *Transmit Diversity Indicator* IE.]

[FDD – If the *Diversity Mode* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Setup* IE in the RADIO LINK SETUP REQUEST message, the DRNS shall apply cell specific transmit diversity configuration and if the *Diversity Mode* IE is not set to "None" the DRNS shall activate/deactivate the Transmit Diversity for the secondary serving HS-DSCH Radio Link in accordance with the *Transmit Diversity Indicator* IE in the *HS-DSCH FDD Secondary Serving Information* IE.]

**DL Power Control:**

[FDD – If both the *Initial DL TX Power* IE and *Uplink SIR Target* IE are included in the message, the DRNS shall use the indicated DL TX Power and Uplink SIR Target as initial value. If the value of the *Initial DL TX Power* IE is outside the configured DL TX power range, the DRNS shall apply these constraints when setting the initial DL TX power. The DRNS shall also include the configured DL TX power range defined by *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. The DRNS shall not transmit with a power higher than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH or on the F-DPCH of the RL except, if the UE Context is configured to use DPCH in the downlink, during compressed mode, when the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD – If both the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not included in the RADIO LINK SETUP REQUEST message, then DRNC shall determine the initial Uplink SIR Target and include it in the *Uplink SIR Target* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD – The DRNC shall use the *Uplink SIR Target CCTrCH* IEs in the RADIO LINK SETUP RESPONSE message to indicate for any UL CCTrCH an Uplink SIR Target value in case this is deviating from the value included in the *Uplink SIR Target* IE specified for the Radio Link. If in any [3.84Mcps TDD – *UL CCTrCH Information* IE] [1.28Mcps TDD – *UL CCTrCH Information LCR* IE] [7.68Mcps TDD – *UL CCTrCH Information 7.68 Mcps* IE] the *Uplink SIR Target CCTrCH* IE is not included, the value of the *Uplink SIR Target* IE shall apply to the respective UL CCTrCH.]

[FDD – If the *Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL TX Power. If the *Enhanced Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL Tx Power.]

[TDD – If [3.84Mcps TDD and 7.68 Mcps TDD – the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD – the *DL Time Slot ISCP Info LCR* IE] is present, the DRNSshould use the indicated value when deciding the Initial DL TX Power for the Radio Link. The DRNS shall use the indicated DL Timeslot ISCP when determining the initial DL power per timeslot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.]

[TDD – If the *Primary CCPCH RSCP Delta* IE is included, the DRNS should assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS should assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS should use the indicated value when deciding the Initial DL TX Power for the Radio Link.]

[3.84 Mcps TDD and 7.68 Mcps TDD – The DL TX power upper and lower limit is configured in the following way:

- The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/*CCTrCH Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/*CCTrCH Minimum DL TX Power* IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD – The DL TX power upper and lower limit is configured in the following way:

- The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[1.28McpsTDD – If the *TSTD Support Indicator* IE is present, the DRNS shall apply this information when configuring the transmit diversity for the new radio link.]

[FDD – The DRNS shall start any DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code or on the F-DPCH of a RL until UL synchronisation is achieved on the Uu interface for the concerned RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] subclause 5.2.1.2) and the power control procedure (see 8.3.15).]

[TDD – The DRNS shall start any DL transmission using the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved on the Uu interface for the concerned RL. No inner loop power control shall be performed during this period. Then after UL synchronisation, the DL power shall vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[FDD – If the received *Inner Loop DL PC Status* IE is set to "Active", the DRNS shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the DRNS shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD – If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the DRNS shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.15, using the *DL Power Balancing Information* IE. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing i.e. $P_{init}$ shall be set to the power level indicated by the *Initial DL TX Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE.]

[FDD – If activation of power balancing by the RADIO LINK SETUP REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

**Neighbouring Cell Handling:**

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Neighbouring FDD Cell Information* IE and/or *Neighbouring TDD Cell Information* IE in the *Neighbouring UMTS Cell Information* IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Frame Offset* IE, *Primary CPICH Power* IE, *Cell Individual Offset* IE, *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring FDD Cell Information* IE, and the *Frame Offset* IE, *Cell Individual Offset* IE, *DPCH Constant Value* IE, the *PCCPCH Power* IE, *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring TDD Cell Information* IE or the *Neighbouring TDD Cell Information LCR* IE. If the *Neighbouring TDD Cell Information* IE includes the *Sync Case* IE for the set to "Case1", the DRNC shall include the *Time Slot For SCH* IE in the *Neighbouring TDD Cell Information* IE. If the *Neighbouring TDD Cell Information* IE includes *Sync Case* IE set to "Case2", the DRNC shall include the *SCH Time Slot* IE in the *Neighbouring TDD Cell Information* IE.

- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.

- If the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE

- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE, the *Cell Capability Container TDD LCR* IE and/or the *Cell Capability Container Extension FDD* IE if the DRNC is aware that the neighbouring cell supports any functionality listed in 9.2.2.D, 9.2.3.1a, 9.2.3.1b and/or the *Cell Capability Container Extension FDD* IE.

- [FDD – The DRNC shall, if supported, include the *Cell List Validity Indicator* IE if the neighbouring cell is multi cell capable and/or dual band capable but the cell can not be the serving HS-DSCH in a multicell and/or dual band configuration. Hence the cell can only serve as the secondary serving HS-DSCH cell. When *Cell List Validity Indicator* IE is included the SRNC should ignore the indicated cell list(s).]

- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise the *Restriction State Indicator* IE may be absent. The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Restriction State Indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If MOCN or GWCN network sharing configuration is used then the DRNC shall include the broadcasted PLMN identities of the concerned neighbouring cells in the *Multiple PLMN List* IE in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If available, the DRNC shall include the *Frequency Band Indicator* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE.

If there are GSM neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Neighbouring GSM Cell Information* IE for each of the GSM neighbouring cells. If available the DRNC shall include in the RADIO LINK SETUP RESPONSE

message the *Cell Individual Offset* IE, and if the *Cell Individual Offset* IE alone cannot represent the value of the offset, the DRNC shall also include the *Extended GSM Cell Individual Offset* IE in the *Neighbouring GSM Cell Information* IE. If available the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

When receiving the *SNA Information* IE in the RADIO LINK SETUP RESPONSE message, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

If there are GERAN neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *GERAN Cell Capability* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK SETUP RESPONSE message for each of the GERAN cells.

If there are GERAN Iu-mode neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include, if available, the *GERAN Classmark* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK SETUP RESPONSE message for each of the GERAN Iu-mode neighbouring cells. Ref. [39] defines when the transmission of the *GERAN Classmark* IE will be required at the initiation of the Relocation Preparation procedure.

If there are E-UTRA neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Neighbouring E-UTRA Cell Information* IE for each of the E-UTRA neighbouring cells.

**[1.28Mcps TDD – Uplink Synchronisation Parameters LCR:]**

[1.28Mcps TDD – If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

**[1.28Mcps TDD – Shared physical channels Synchronisation Detection:]**

[1.28Mcps TDD – If HS-PDSCH and E-PUCH are configured but no DPCH is configured for the UE, then the DRNS shall also include the *Out-of-sync Detection Window* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

**[1.28Mcps TDD – Uplink Timing Advance Control LCR:]**

[1.28Mcps TDD – The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK SETUP RESPONSE message.]

**[1.28Mcps TDD – PowerControl GAP:]**

[1.28Mcps TDD – If applied in the DRNS, the DRNC may include the *PowerControl GAP* IE in the RADIO LINK SETUP RESPONSE message.]

**[1.28Mcps TDD – E-UTRAN Inter-RAT measurement:]**

[1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *Idle Interval Configuration Indicator* IE, if supported, the DRNC shall include the *Idle Interval Information* IE in the RADIO LINK SETUP RESPONSE message.]

**[1.28Mcps TDD – RNTI Allocation Indicator:]**

[1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *RNTI Allocation Indicator* IE, if supported, the DRNS may allocate an E-RNTI and/or an H-RNTI for UE to use in CELL_FACH state.]

**[1.28Mcps TDD – Inter-frequency/ Inter-RAT measurement:]**

[1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *DCH Measurement Type indicator* IE, if supported, the DRNS shall include the *Measurement purpose* IE and the *Measurement occasion pattern sequence parameters* IE in the *DCH Measurement Occasion Information* IE in the RADIO LINK SETUP RESPONSE message to configure the measurement occasion pattern(s) indicated by the *DCH Measurement Type indicator* IE.]

**MBMS Handling:**

If the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall, if supported, perform the UE Linking as specified in [50], section 5.1.6. If the UE Link is currently stored in the UE Context or the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message and if an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in some of the cells identified by the *C-ID* IEs in the RADIO LINK SETUP REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE in the concerned *RL Information Response* IEs in the RADIO LINK SETUP RESPONSE message.

If the UE Link is currently stored in the UE Context or the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message and if an MBMS preferred frequency layer for some active MBMS bearer services contained in the UE Link is set in some of the cells identified by the *C-ID* IEs in the RADIO LINK SETUP REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Preferred Frequency Layer* IE in the concerned *RL Information Response* IEs in the RADIO LINK SETUP RESPONSE message.

**[FDD – HS-DSCH Preconfiguration for Enhanced HS Serving Cell Change]**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH Preconfiguration Setup* IE in the *RL Information* IE for a Radio Link not indicated by the *HS-PDSCH RL ID* IE the DRNS shall if supported preconfigure the indicated cells for Enhanced HS Serving Cell Change acoording to [63]: ]

- [FDD – The DRNS shall preconfigure sets of HS-SCCH codes on the cells preconfigured for HS-DSCH, primary serving HS-DSCH cell, as well as on the secondary serving HS-DSCH cells. The primary serving HS-DSCH cell is designated through the *C-ID* IE part of the *RL Information* IE in the RADIO LINK SETUP REQUEST message. The list of secondary serving HS-DSCH cells is designated by the list of *Secondary C-ID* IEs in the *HS-DSCH Preconfiguration Setup* IE part of the *RL Information* IE in the RADIO LINK SETUP REQUEST message. ]

- [FDD – The number of HS-SCCH codes to preconfigure for each cell may be optionally specified: ]

  - [FDD – by the *Num Primary HS-SCCH Codes* IE in the *HS-DSCH Preconfiguration Setup* IE, for the primary serving HS-DSCH cell]

  - [FDD – by the *Num Secondary HS-SCCH Codes* IE in the *Secondary Cells* IE in the *HS-DSCH Preconfiguration Setup* IE for each of the secondary serving HS-DSCH cells]

- [FDD –If *Num Primary HS-SCCH Codes* IE or *Num Secondary HS-SCCH Codes* IE is not included in the message the number and distribution of codes on primary and any secondary cells shall be preconfigured to satisfy any limitations in [10]. ]

- [FDD – The DRNS shall return these codes in the *Sets of HS-SCCH Codes IE* along with the corresponding per-cell *HS-DSCH-RNTI* IE in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE of the RADIO LINK SETUP RESPONSE message or in the *Successful RL Information Response* IE of the RADIO LINK SETUP FAILURE message. ]

- [FDD – The DRNS shall use the first in the numbered list of the primary serving HS-DSCH cell's HS-SCCH codes in the *HS-SCCH Preconfigured Codes* IE sent to the SRNC to signal the Target Cell HS-SCCH Order defined in [18]. ]

- [FDD – The DRNS shall include, in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message or in the *Successful RL Information Response* IE of the RADIO LINK SETUP FAILURE message, IEs according to the rules defined for HS-DSCH setup and: ]

  - [FDD – if *HARQ Preamble Mode* IE is included in the *HS-DSCH Preconfiguration Setup* IE the *HARQ Preamble Mode Activation Indicator* IE]

  - [FDD – if *MIMO Activation Indicator* IE is included in the *HS-DSCH Preconfiguration Setup* IE or in the *Secondary Cells* IE in the *HS-DSCH Preconfiguration Setup* IE the Pilot Configuration and MIMO N/M Ratio in *MIMO Information Response* IE]

- [FDD – if *HS-DSCH MAC-d PDU Size Format* IE is included in the *HS-DSCH Preconfiguration Setup* IE and set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used in the preconfiguration, the *HS-DSCH TB Size Table Indicator* IE for each preconfigured cell]

- [FDD – if *Sixtyfour QAM Usage Allowed Indicator* IE is included in the Secondary Cells IE in the *HS-DSCH Preconfiguration Setup* IE or in the *HS-DSCH Preconfiguration Setup* IE the *SixtyfourQAM DL Usage Indicator* IE for each preconfigured cell]

- [FDD – if *Continuous Packet Connectivity HS-SCCH less Information* IE is included in the *HS-DSCH Preconfiguration Setup* IE the *Continuous Packet Connectivity HS-SCCH less Information Response IE*]

- [FDD – if the *UE with enhanced HS-SCCH support indicator* IE is included in the *HS-DSCH Preconfiguration Setup* IE, then the DRNS shall store this information in the preconfigured configuration.]

- [FDD – the *SixtyfourQAM DL Support Indicator* IE shall be included]

- [FDD – if the *UE Support Indicator Extension* IE is included in the *HS-DSCH Preconfiguration Setup* IE, then the DRNS may store this information in the preconfigured configuration.]

- [FDD – The DRNS shall include in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message or in the *Successful RL Information Response* IE of the RADIO LINK SETUP FAILURE message the *E-DCH FDD DL Control Channel Information* containing the preconfigured configuration of the E-DCH serving cell according to the rules defined for Serving E-DCH Radio Link Change as follows: ]

  - [FDD – The DRNS shall allocate for the preconfigured configuration a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE.]

  - [FDD – The DRNS may preconfigure the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the serving E-DCH RL and include these values in the *E-DCH FDD DL Control Channel Information* IE.]

- [FDD –If the *HS-DSCH Preconfiguration Setup* IE includes the *E-DCH Indicator* IE for a secondary cell, the DRNS shall include in the *Additional E-DCH Preconfiguration Information* IE in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message or in the *Successful RL Information Response* IE of the RADIO LINK SETUP FAILURE message the *E-DCH FDD DL Control Channel Information* containing the preconfigured configuration of the Additional E-DCH serving cell, corresponding to the cell indicated with the *E-DCH Indicator* IE, according to the rules defined for Serving Additional E-DCH Radio Link Change as follows:]

  - [FDD – The DRNS shall allocate for the preconfigured configuration a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving Additional E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE. ]

  - [FDD – The DRNS may preconfigure the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the serving Additional E-DCH RL and include these values in the *E-DCH FDD DL Control Channel Information* IE.]

- [FDD – If the *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where HS-DSCH is preconfigured, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH Preconfiguration Info* IE in the RADIO LINK SETUP RESPONSE message. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Non-Serving RL Preconfiguration Setup* IE in the *RL Information* IE and:]

- [FDD – if the choice of *new Serving RL* is "New Serving RL in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE and/or *New non-serving RL E-*

*DCH FDD DL Control Channel Information B* IE in the *Non-Serving RL Preconfiguration Info* IE for the RL in the RADIO LINK SETUP RESPONSE message.]

- [FDD – if the choice of *new Serving RL* is "New Serving RL Not in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information C* IE in the *Non-Serving RL Preconfiguration Info* IE for the RL in the RADIO LINK SETUP RESPONSE message.]

- [FDD – if the choice of *new Serving RL* is "New Serving RL in the DRNS or New Serving RL Not in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE, the *New non-serving RL E-DCH FDD DL Control Channel Information B* IE and/or the *New non-serving RL E-DCH FDD DL Control Channel Information C* IE for the RL in the *Non-Serving RL Preconfiguration Info* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – if the *Additional E-DCH Non-Serving RL Preconfiguration Setup* IE is included, the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE, the *New non-serving RL E-DCH FDD DL Control Channel Information B IE and/or the New non-serving RL E-DCH FDD DL Control Channel Information C* IE according to the choice of *new Serving RL* in *Additional E-DCH New non-serving RL E-DCH FDD DL Control Channel Information* IE for the additional non serving E-DCH RL in the *Non-Serving RL Preconfiguration Info* IE in the RADIO LINK SETUP RESPONSE message.]**General:**

If the RADIO LINK SETUP REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs [FDD – for every DCH being established for which the *Transport Bearer Not Requested Indicator* IE was not included].

If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *D-RNTI* IE, the *CN PS Domain Identifier* IE and/or the *CN CS Domain Identifier* IE for the CN domains (using LAC and RAC of the current cell) to which the DRNC is connected.

[1.28 Mcps TDD – If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC could include in the RADIO LINK SETUP RESPONSE message the *UARFCN* IE.]

[FDD – If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Primary Scrambling Code* IE, the *UL UARFCN* IE and the *DL UARFCN* IE.]

[TDD – If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *UARFCN* IE, the *Cell Parameter ID* IE and the *SCTD Indicator* IE.]

[3.84Mcps TDD and 7.68 Mcps TDD – If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Sync Case* IE and if the *Sync Case* IE is set to “Case 2”, the DRNC shall also include the *SCH Time Slot* IE in the RADIO LINK SETUP RESPONSE message. If the included *Sync Case* IE is set to “Case1”, the DRNC shall also include the *Time Slot For SCH* IE.]

[3.84Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[7.68 Mcps TDD – The DRNC shall include the *Secondary CCPCH Info 7.68Mcps TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response 7.68 Mcps* IE or *USCH Information Response 7.68 Mcps* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info 7.68Mcps TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response 7.68 Mcps* IE or *USCH Information Response 7.68 Mcps* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

For each Radio Link established in a cell in which at least one URA Identity is being broadcast, the DRNC shall include in the *URA Information* IE within the RADIO LINK SETUP RESPONSE message URA Innformation for this cell including the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the *RNC-ID* Iesof all other RNCs that have at least one cell within the URA identified by the *URA ID* IE.

Depending on local configuration in the DRNS, the DRNC may include in the RADIO LINK SETUP RESPONSE message the *UTRAN Access Point Position* IE and the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE. If the DRNC includes the *Cell GA Additional Shapes* IE in the RADIO LINK SETUP RESPONSE message, it shall also include the *Cell GAI* IE.

If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the *Permanent NAS UE Identity* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the RADIO LINK SETUP REQUEST message includes the *Permanent NAS UE Identity* IE and a *C-ID* IE corresponding to a cell reserved for operator use, the DRNS shall use this information to determine whether it can set up a Radio Link on this cell or not for the considered UE Context.

If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

The DRNS shall start receiving on the new RL(s) after the RLs are successfully established.

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Cell Portion ID* IE, the DRNS shall use this information when it decides to use beamforming for the new RL.]

[1.28 Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *Cell Portion LCR ID* IE, the DRNS shall use this information when it decides to allocate physical resource for the new RL.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the DRNS may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the DRNS shall include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *D-RNTI* IE which already has a RL and *Synchonisation Indicator* IE, the DRNC shall ignore the value in the *Frame Offset* IE and *Chip Offset* IE in the RADIO LINK SETUP REQUEST message and shall include in the *Frame Offset* IE and *Chip Offset* IE the values used for already established RL in the RADIO LINK SETUP RESPONSE message.]

**[FDD – Radio Link Set Handling:]**

[FDD – The *First RLS Indicator* IE indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The DRNS shall use the *First RLS Indicator* IE to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to the RL a unique value for the *RL Set ID* IE which uniquely identifies the RL as an RL Set within the UE Context. In case of E-DCH, the generation of E-HICH related information for RLs in different RL Set(s) shall not be common.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to each RL the same value for the *RL Set ID* IE which uniquely identifies these RLs as members of the same RL Set within the UE Context. In case of E-DCH, the generation of E-HICH information for all RLs in a RL Set shall be common.]

[FDD –The UL oout-of-sync algorithm defined in ref. [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

[FDD – For each E-DCH RL which has or can have a common generation of E-RGCH information with another RL (current or future) when the DRNS would contain the E-DCH serving RL, the DRNS shall include the *E-DCH RL Set ID* IE in the RADIO LINK SETUP RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the SRNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

**[TDD- E-DCH:]**

[TDD – If the [3.84Mcps – *E-DCH Information* IE][1.28Mcps – *E-DCH Information 1.28Mcps* IE][7.68Mcps TDD – *E-DCH Information 7.68Mcps* IE] is present in the RADIO LINK SETUP REQUEST message:]

- [TDD – The DRNS shall setup the requested E-DCH resources on the Radio Link indicated by the *E-DCH Serving RL* IE.]
- [TDD – If the *TNL QoS* IE is included in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]
- [TDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]
- [TDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flows Information TDD* IE, the DRNS shall use this information for the related resource allocation operation.]
- [TDD – If in the RADIO LINK SETUP REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Non-scheduled" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants are configured for that E-DCH MAC-d flow.]
- [TDD – If in the RADIO LINK SETUP REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Scheduled" the DRNS shall assume that it may issue scheduled grants for the concerned E-DCH MAC-d flow.]
- [TDD – If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions for the related queue.]
- [1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *MAC-es Maximum Bit Rate LCR* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [TDD – If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information TDD* IE in the *E-DCH Information* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel and use the indicated format in user plane frame structure for E-DCH channels [32] and MAC [41].]

- [3.84Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH TDD Maximum Bitrate* IE in the *E-DCH TDD Information* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE in the *E-DCH TDD Information LCR* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE in the *E-DCH TDD Information 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [7.68Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information 7.68Mcps* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information LCR* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [TDD – The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.]

- [TDD – If the RADIO LINK SETUP REQUEST message includes the [3.84Mcps TDD – *E-DCH TDD Information* IE][1.28Mcps TDD – *E-DCH TDD Information LCR* IE] in the *E-DCH MAC-d Flows Information TDD* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD – If the RADIO LINK SETUP REQUEST message includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE in the *E-DCH TDD Information LCR* IE, then the DRNS shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

- [3.84Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information TDD* IE in the *E-DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [3.84Mcps TDD – The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information LCR TDD* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD – The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier, the E-AGCH(s) and E-HICH(s) assigned in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK SETUP RESPONSE message.]

- [7.68Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information7.68Mcps TDD* IE in the *E-DCH Information Response* 7.68Mcps IE in the RADIO LINK SETUP RESPONSE message.]

- [7.68Mcps TDD – The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK SETUP RESPONSE message.]

**Response Message:**

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS allocates the requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH, for each set of co-ordinated DCHs [TDD – and for each DSCH and USCH]. This information shall be sent to the SRNC in the RADIO LINK SETUP RESPONSE message when all the RLs have been successfully established.

[1.28 Mcps TDD – if the DRNS assigns one or more PLCCH sequence numbers to the radio link, then the PLCCH assignment(s) shall be sent to the SRNC in the RADIO LINK SETUP RESPONSE message.]

After sending the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message the DRNS shall:

- [FDD – start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4].]
- [TDD – start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
  - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
  - [FDD – start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]
  - [TDD – start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in ref. [4].]

### 8.3.1.3 Unsuccessful Operation

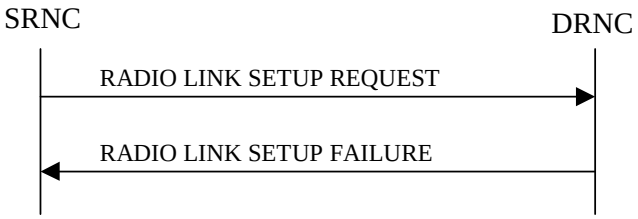



**Figure 6: Radio Link Setup procedure: Unsuccessful Operation**

If the establishment of at least one radio link is unsuccessful, the DRNC shall respond with a RADIO LINK SETUP FAILURE message. The DRNC shall include in the RADIO LINK SETUP FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD – If some radio links were established successfully, the DRNC shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

If the RADIO LINK SETUP REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the *Permanent NAS UE Identity* IE is not present, the DRNC shall reject the procedure and send the RADIO LINK SETUP FAILURE message.

[FDD – If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE, the *HS-DSCH FDD Information Response* IE and the *SixtyfourQAM DL Support Indicator* IE in the RADIO LINK SETUP FAILURE message. This *SixtyfourQAM DL Support Indicator* IE is related to the HS-DSCH Radio Link.]

[FDD – If the RL identified by the *HS-PDSCH RL ID* IE in the *Additional HS Cell Information RL Setup* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a HS-DSCH-RNTI to the UE

Context and include the *HS-DSCH-RNTI* IE, the *HS-DSCH FDD Secondary Serving Information Response* IE and the *SixtyfourQAM DL Support Indicator* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK SETUP FAILURE message. If the establishment of the RL identified by the *HS-PDSCH RL ID* IE in the *Additional HS Cell Information RL Setup* IE, i.e secondary serving HS-DSCH Radio Link is unsuccessful but the establishment of the RL identified by the *HS-PDSCH RL ID* IE for the serving HS-DSCH Radio Link is successful, then the DRNC shall indicate the unsuccessful secondary serving HS-DSCH Radio Link in the *Unsuccessful RL Information Response* IE in the RADIO LINK SETUP FAILURE message by setting the *RL ID* IE to the same value as the unsuccessful *HS-PDSCH RL ID* IE in the *Additional HS Cell Information RL Setup* IE.]

[1.28 Mcps TDD – If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE, the *HS-DSCH TDD Information Response* IE and the *SixtyfourQAM DL Support Indicator* IE in the RADIO LINK SETUP FAILURE message.]

[FDD – If the *MIMO Activation Indicator* IE is included and the *Power Offset For S-CPICH for MIMO Request Indicator* IE is not included in the *HS-DSCH FDD Information* IE in the RADIO LINK SETUP REQUEST message but MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, the setup of the serving HS-DSCH Radio Link shall be reported as failed and the DRNC shall include in the RADIO LINK SETUP FAILURE message the *Cause* IE.]

[FDD – If the RL identified by the *E-DCH Additional RL ID* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE is a radio link in the DRNS and this RL is successfully established, then the DRNS shall include the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message. If the establishment of the RL identified by the *E-DCH Additional RL ID* IE is unsuccessful, then the DRNS shall indicate the unsuccessful setup of the Additional E-DCH Radio Link in the *Unsuccessful RL Information Response* IE in the RADIO LINK SETUP FAILURE message by setting the *RL ID* IE to the same value as the unsuccessful *E-DCH Additional RL ID* IE in the *Additional E-DCH Cell Information Setup* IE.]

Typical cause values are:

**Radio Network Layer Causes:**

[FDD – UL Scrambling Code Already in Use;]
DL Radio Resources not Available;
UL Radio Resources not Available;
[FDD – Combining Resources not available;]
Combining not Supported
Requested Configuration not Supported;
Cell not Available;
[FDD – Requested Tx Diversity Mode not Supported;]
Power Level not Supported;
Number of DL codes not supported;
Number of UL codes not supported;
Dedicated Transport Channel Type not Supported;
DL Shared Channel Type not Supported;
[TDD – UL Shared Channel Type not Supported;]
[FDD – UL Spreading Factor not Supported;]
[FDD – DL Spreading Factor not Supported;]
CM not Supported;
[FDD – DPC mode change not Supported;]
Cell reserved for operator use;
Delayed Activation not supported;
E-DCH not supported;
[FDD – F-DPCH not supported;]
[FDD – Continuous Packet Connectivity DTX-DRX operation not Supported;]
[FDD – Continuous Packet Connectivity HS-SCCH less operation not Supported;]
[FDD – MIMO not supported;]
[FDD – E-DCH TTI2ms not supported;]
[FDD – Continuous Packet Connectivity DTX-DRX operation not available;]
[FDD – Continuous Packet Connectivity UE DTX Cycle not available;]
[FDD – MIMO not available;]
[FDD – SixteenQAM UL not Supported;]

HS-DSCH MAC-d PDU Size Format not supported;
[FDD – F-DPCH Slot Format operation not supported;]
E-DCH MAC-d PDU Size Format not available;
[FDD – E-DPCCH Power Boosting not supported;]
[FDD – SixtyfourQAM DL and MIMO Combined not available;]
[FDD – Multi Cell operation not available;]
[FDD – Multi Cell operation not supported;]
[FDD – Multi Cell operation with MIMO not available;]
[FDD – Multi Cell operation with MIMO not supported;]
[FDD – Single Stream MIMO not supported;]
[FDD – Single Stream MIMO not available;]
[FDD – TX diversity for MIMO UE on DL Control Channels not available;]
[FDD – Multi Cell E-DCH Operation not supported;]
[FDD – Multi Cell E-DCH Operation not available;]
[FDD – Multi Cell operation with Single Stream MIMO not available;]
[FDD – Multi Cell operation with Single Stream MIMO not supported;]
[FDD – Cell Specific Tx Diversity Handling For Multi Cell Operation Not Available;]
[FDD – Cell Specific Tx Diversity Handling For Multi Cell Operation Not Supported.]

**Transport Layer Causes:**

Transport Resource Unavailable.

**Miscellaneous Causes:**

Control Processing Overload;
HW Failure;
Not enough User Plane Processing Resources.

### 8.3.1.4 Abnormal Conditions

If the DRNC receives either an S-RNTI or a D-RNTI which already has RL(s) established [FDD – and the *Synchronisation Indicator* IE is not included in the RADIO LINK SETUP message,] the DRNC shall send the RADIO LINK SETUP FAILURE message to the SRNC, indicating the reason for failure.

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message includes both the *Initial DL TX Power* IE and the *Primary CPICH Ec/No* IE or does not include either of these IEs, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Radio Link Setup procedure and shall respond with a RADIO LINK SETUP FAILURE message.

[FDD – If only the *Initial DL TX Power* IE or the *Uplink SIR Target* IE is included in the RADIO LINK SETUP REQUEST message, then DRNC shall reject the Radio Link Setup procedure and shall respond with the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE [FDD – or in the *RL Specific E-DCH Information* IE] included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must" [FDD- or the RL is combined with an E-DCH

RL previously listed in the RADIO LINK SETUP RESPONSE message in the DRNS], the DRNC shall reject the Radio Link Setup procedure and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE nor *RL Specific E-DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "May", the DRNC shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must Not", the DRNC shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for the first RL and/or [FDD – in the *RL Specific E-DCH Information* IE in the *RL Information* IE for the first E-DCH RL][TDD – in the *E-DCH MAC-d Flows Information TDD* IE], the DRNC shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE for an HS-DSCH MAC-d Flow in the *HS-DSCH MAC-d Flows Information* IE, the DRNC shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

[TDD – If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE for a DSCH in the *DSCH TDD Information* IE and/or for an USCH in the *USCH Information* IE, the DRNC shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall reject the Radio Link Setup procedure and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes an *HS-PDSCH RL-ID* IE not referring to one of the radio links to be established, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Indexed MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Flexible MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD – If the RADIO LINK SETUP REQUEST message contains, for at least one logical channel, the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE and there exist a logical channel for which the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE is not present, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[TDD – If the RADIO LINK SETUP REQUEST message contains, for at least one logical channel, the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information TDD* IE in the *E-DCH Information* IE, and there exist a logical channel for which the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information TDD* IE in the *E-DCH Information* IE is not present, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *E-DCH RL Indication* IE set to "E-DCH", but does not contain the *E-DCH FDD Information* IE, or if the message contains the *E-DCH FDD Information* IE, but does not contain the *E-DCH RL Indication* IE set to "E-DCH", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *Serving E-DCH RL* IE but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not configured to be in the same cell then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD – If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *E-DPCH Information* IE but does not contain the *UL DPDCH Indicator for E-DCH operation* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Serving Cell Change CFN* IE, but neither the *Serving E-DCH RL* IE nor *HS-DSCH Information* IE is included, then the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH, but does not contain the *Unidirectional DCH indicator* IE set to "Uplink DCH only" in the *DCH Specific Info* IE for the DCH, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Synchronisation Indicator* IE for a RL, but does not contain the *D-RNTI* IE which already has the RL, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains the *UL DPCCH Slot Format* set to "4" but does not contain the *F-DPCH Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains the *UL DPCCH Slot Format* set to "0" or "2" and the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains *Diversity Mode* IE set to "Closed loop mode 1"and *UL DPCCH Slot Format* not set to "2" or "3", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *MIMO Activation Indicator* IE, *Sixtyfour QAM Usage Allowed Indicator* IE set to "Allowed", the *Additional HS Cell Information RL Setup* IE and/or the *Single Stream MIMO Activation Indicator* IE, but does not contain the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but does not contain the *F-DPCH Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Serving E-DCH RL ID* IE but contains the *Transport Bearer Not Requested Indicator* IE in the RL Specific E-DCH Information for the new Serving E-DCH RL, the DRNC shall reject the procedure using the RADIO LINK FAILRE message.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d Flow for a specific RL and the specific RL is combined with RL which the transport bearer is configured to be established for the DCH or the E-DCH MAC-d Flow, previously listed in the RADIO LINK SETUP RESPONSE message in the DRNS, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Additional HS Cell Information RL Setup* IE indicating a seconadry serving cell that is not in the same Node B as the new serving HS-DSCH cell, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Additional HS Cell Information RL Setup* IE and if the *HS-DSCH Information* IE is not present, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes the *DL RLC PDU Size Format* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE set to "Flexible RLC PDU Size", and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Indexed MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *DL RLC PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Flexible RLC PDU Size", the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD – If the RADIO LINK SETUP REQUEST message contains a *MIMO Activation Indicator* IE and a *Single Stream MIMO Activation Indicator* IE in the *HS-DSCH FDD Information* IE or in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Setup* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Additional E-DCH Cell Information RL Setup Req* IE and if the *E-DPCH Information* IE is not present, then the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Additional E-DCH Cell Information RL Setup Req* IE and there exist a logical channel for which the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE is not present, the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Additional E-DCH Cell Information RL Setup Req* IE and the *C-ID* IE is not included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Setup* IE the *Diversity Mode* IE not set to "None" but not the *Transmit Diversity Indicator* or contains the *Transmit Diversity Indicator* but not the *Diversity Mode* IE not set to "None", then the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

## 8.3.2 Radio Link Addition

### 8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one [FDD – or more] additional RLs towards a UE when there is already at least one RL established to the concerned UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

[TDD – The Radio Link Addition procedure serves to establish a new Radio Link with the DSCH and USCH included, if they existed before.]

### 8.3.2.2 Successful Operation

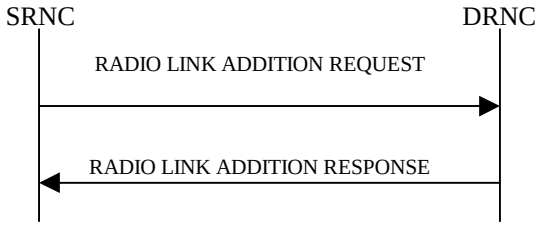



**Figure 7: Radio Link Addition procedure: Successful Operation**

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the *UE Aggregate Maximum Bit Rate* IE is contained in the RADIO LINK ADDITION REQUEST message, the DRNS shall, if supported, store the received UE Aggregate Maximum Bit Rate parameters to control the aggregate data rate of non GBR traffic for this UE.

**Transport Channel Handling:**

[3.84 Mcps TDD – The DRNC shall include the *UL/DL DPCH Information* IE within the *UL/DL CCTrCH Information* IE for each CCTrCH that requires DPCHs.]

[1.28 Mcps TDD – The DRNC shall include the *UL/DL DPCH Information LCR* IE within the *UL/DL CCTrCH Information LCR* IE for each CCTrCH that requires DPCHs.]

[7.68 Mcps TDD – The DRNC shall include the *UL/DL DPCH Information 7.68 Mcps* IE within the *UL/DL CCTrCH Information 7.68 Mcps* IE for each CCTrCH that requires DPCHs.]

**[TDD – DSCH:]**

[3.84 Mcps TDD – If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response* IE for each DSCH.]

[1.28 Mcps TDD – If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response LCR* IE for each DSCH.]

[7.68 Mcps TDD – If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response 7.68 Mcps* IE for each DSCH.]

**[TDD – USCH:]**

[3.84 Mcps TDD – If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *USCH Information Response* IE for each USCH.]

[1.28 Mcps TDD – If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *USCH Information Response LCR* IE for each USCH.]

[7.68 Mcps TDD – If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *USCH Information Response 7.68 Mcps* IE for each USCH.]

**Physical Channels Handling:**

**[FDD –Compressed Mode:]**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated (all ongoing) Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* IE refers to the latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD – If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD – If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD – For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE and the concerned UE Context is configured to use F-DPCH in the downlink, the DRNS shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration.]

[FDD – If the *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the ongoing compressed mode pattern in the new RLs, but the ongoing pattern in the existing RL shall be maintained.]

[FDD – If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS and the UE Context is configured to use DPCH in the downlink, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code.]

**[FDD – DL Code Information:]**

[FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

**[TDD – CCTrCH Handling:]**

[TDD – If the*UL CCTrCH Information* IE is present, the DRNS shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD – If the *UL CCTrCH Information* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall configure the uplink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[TDD – If the *DL CCTrCH Information* IE is present, the DRNS shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD – If the *DL CCTrCH Information* IE includes the *TDD TPC Downlink Step Size* IE, the DRNS shall configure the downlink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

**General:**

[FDD – The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

**Radio Link Handling:**

**Diversity Combination Control:**

The *Diversity Control Field* IE indicates for each RL whether the DRNS shall combine the new RL with existing RL(s) or not on the Iur.

- If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.

- If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL. When a new RL is to be combined the DRNS shall choose which RL(s) to combine it with.

- If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.

[FDD – The *Diversity Control Field* IE is only applicable for DCHs, in case of E-DCH it shall always be assumed to be set to "May".]

In the case of not combining a RL with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or a RL previously listed in the RADIO LINK ADDITION RESPONSE message, the DRNC shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that no combining is done. In this case the DRNC shall:

- include in the *DCH Information Response* IE both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message [FDD – for which the *Transport Bearer Not Requested Indicator* IE was not included].

- [FDD – include in the RADIO LINK ADDITION RESPONSE the *Transport Bearer Not Setup Indicator* IE for every DCH or set of co-ordinated DCHs for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK ADDITION REQUEST message.]

[FDD – In case of not combining E-DCH, the *E-DCH FDD Information Response* IE shall be included in the RADIO LINK ADDITION RESPONSE message containing the *Binding ID* IE and the *Transport Layer Address* IE for the establishment of transport bearers for every E-DCH MAC-d flow being established for which the *Transport Bearer Not Requested Indicator* IE was not included.]

[FDD – In case of not combining E-DCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE the *Transport Bearer Not Setup Indicator* IE for every E-DCH MAC-d flow for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK ADDITION REQUEST message.]

In the case of combining with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, the DRNC shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that the RL is combined. In this case, the *RL ID* IE indicates (one of) the previously established RL(s) or a RL previously listed in this RADIO LINK ADDITION RESPONSE message with which the new RL is combined and if the ALCAP is not used [FDD – and the transport bearer for this DCH is already established], the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK ADDITION REQUEST message, shall not be used.

[FDD – In the case of combining with an E-DCH RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, one of the previously established RLs or a RL previously listed in this RADIO LINK ADDITION RESPONSE message including the *E-DCH FDD Information Response* IE and part of the same Radio Link Set shall be regarded as the RL with which the concerned E-DCH RL is combined and if the ALCAP is not used, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific E-DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK ADDITION REQUEST message, shall not be used. In case E-DCH RL is established for the first time, the DRNC shall include *E-DCH FDD Information Response* IE instead of using the Diversity Indication of DCH RL in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. It shall include in the *E-DCH FDD Information Response* IE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearers to be established for each E-DCH MAC-d flow of this E-DCH RL for which the *Transport Bearer Not Requested Indicator* IE was not included.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Additional E-DCH Cell Information RL Add Req* IE, then:]

- [FDD – if the *Multicell E-DCH Transport Bearer Mode* IE for an Additional E-DCH to be Setup is set to "Separate Iur Transport Bearer Mode" the DRNS shall use this mode in the new configuration and apply separate transport bearers for the MAC-d flows.]

- [FDD – if the *Multicell E-DCH Transport Bearer Mode* IE for an Additional E-DCH to be Setup is set to "UL Flow Multiplexing Mode" the DRNS shall use this mode in the new configuration and multiplex MAC-d flows on the transport bearers.]

- [FDD – if Separate Iur Transport Bearer Mode is used in the new configuration, then:]

  - [FDD – the DRNS shall follow the rules defined in this procedure for single carrier mode of operation for establishment of the transport bearer for a MAC-d flow and use the *Transport Bearer Not Requested Indicator* IE in the *RL Specific E-DCH Information* IE in the *RL Information* IE received for the corresponding Radio Link(s) of the Primary Uplink Frequency to determine the transport bearer configuration in the new configuration for the radio links of the Secondary Uplink Frequency.]

  - [FDD – If the *Transport Layer Address* IE and *Binding ID* IE is included for an E-DCH MAC-d flow in the *Additional E-DCH MAC-d Flows Specific Information* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE or in the *Additional E-DCH RL Specific Information To Add* IE in the *Additional E-DCH Cell Information Addition* IE, then the DRNS may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow. If the DRNS establishes a transport bearer for the concerned E-DCH MAC-d flow the DRNS shall, for establishment of the transport bearer, include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE in the *Additional E-DCH MAC-d Flow Specific Information Response* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE for establishment of the transport bearer.]

[TDD – The DRNC shall always include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH of the RL.]

In the case of a set of co-ordinated DCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and the *Transport Layer Address* IE for only one of the DCHs in the set of co-ordinated DCHs [FDD – for which the *Transport Bearer Not Requested Indicator* IE was not included].

If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

**[FDD – Transmit Diversity:]**

[FDD – The DRNS shall activate any feedback mode diversity according to the received settings.]

[FDD – If the cell in which the RL is being added is capable to provide Close loop Tx diversity, the DRNC shall indicate the Closed loop timing adjustment mode of the cell by including the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD – When the *Transmit Diversity Indicator* IE and/or *Transmit Diversity Indicator* IE in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Addition* IE is present the DRNS shall activate/deactivate the Transmit Diversity for each new Radio Link and/or secondary serving HS-DSCH Radio Link in accordance with the *Transmit Diversity Indicator* IE and/or *Transmit Diversity Indicator* IE in the *HS-DSCH FDD Secondary Serving Information* IE using the diversity mode of the existing Radio Link(s) and/or existing secondary serving HS-DSCH Radio Link.]

**DL Power Control:**

[FDD – If the *Primary CPICH Ec/No* IE or the *Primary CPICH Ec/No* IE and the *Enhanced Primary CPICH Ec/No* IE measured by the UE are included for an RL in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power for this RL. If the *Primary CPICH*

*Ec/No* IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLs.]

[TDD – If [3.84Mcps TDD and 7.68 Mcps TDD – the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD – the *DL Time Slot ISCP Info LCR* IE] is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use it in the calculation of the Initial DL TX Power.]

[TDD – If the *Primary CCPCH RSCP Delta* IE is included, the DRNS shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS shall assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS shall use it in the calculation of the Initial DL TX Power.]

[TDD – If the *Primary CCPCH RSCP* IE, *Primary CCPCH RSCP Delta* IE, [3.84Mcps TDD and 7.68 Mcps TDD – and the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD – and the *DL Time Slot ISCP Info LCR* IE] are not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CCPCH power used by the existing RL.]

[FDD – The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [10] subclause 5.2.1.2) and the power control procedure (see 8.3.7).]

[TDD – The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[3.84 Mcps TDD and 7.68 Mcps TDD – The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK ADDITION RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/*CCTrCH Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/*CCTrCH Minimum DL TX Power* IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD – The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK ADDITION RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[FDD – If the *DPC Mode* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK ADDITION REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

The DRNC shall provide the configured *Maximum DL TX Power* IE and *Minimum DL TX Power* IE for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. The DRNS shall not transmit with a power higher than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH [FDD – or on the F-DPCH] of the RL [FDD – except, if the UE Context is configured to use DPCH in the downlink, during compressed mode, when the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD – If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the DRNS shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported by the DRNS, according to subclause 8.3.15. In this case, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in

the RADIO LINK ADDITION RESPONSE message. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. $P_{init}$ shall be set to the power level which is calculated based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE (if received), or to the power level which is calculated based on the power relative to the Primary CPICH power used by the existing RLs.]

**UL Power Control:**

The DRNC shall also provide the configured UL Maximum SIR and UL Minimum SIR for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. These values are taken into consideration by DRNS admission control and shall be used by the SRNC as limits for the UL inner-loop power control target.

**Neighbouring Cell Handling:**

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Neighbouring FDD Cell Information* IE and/or *Neighbouring TDD Cell Information* IE in the *Neighbouring UMTS Cell Information* IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Frame Offset* IE, *Primary CPICH Power* IE, *Cell Individual Offset* IE, *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring FDD Cell Information* IE, and the *Frame Offset* IE, *Cell Individual Offset* IE, *DPCH Constant Value* IE and the *PCCPCH Power* IE, *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring TDD Cell Information* IE or the *Neighbouring TDD Cell Information LCR* IE. If the *Neighbouring TDD Cell Information* IE includes the *Sync Case* IE set to "Case1", the DRNC shall include the *Time SlotFor SCH* IE in the *Neighbouring TDD Cell Information* IE. If the *Neighbouring TDD Cell Information* IE includes the *Sync Case* IE set to "Case2", the DRNC shall include the *SCH Time Slot* IE in the *Neighbouring TDD Cell Information* IE.

- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK ADDITION RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.

- [FDD – The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE if this information is available.]

- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE, *Cell Capability Container 7.68Mcps TDD* IE, the *Cell Capability Container TDD LCR* IE and/or the *Cell Capability Container Extension FDD* IE if the DRNC is aware that the neighbouring cell supports any functionality listed in 9.2.2.D, 9.2.3.1a, 9.2.3.1b and 9.2.2.123.

- [FDD – The DRNC shall, if supported, include the *Cell List Validity Indicator* IE if the neighbouring cell is multi cell capable and/or dual band capable but the cell can not be the serving HS-DSCH in a multicell and/or dual band configuration. Hence the cell can only serve as the secondary serving HS-DSCH cell. When *Cell List Validity Indicator* IE is included the SRNC should ignore the indicated cell list(s).]

- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK ADDITION RESPONSE message the restriction state of those cells, otherwise *Restriction State Indicator* IE may be absent. The DRNC shall include the *Restriction State Indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If MOCN or GWCN network sharing configuration is used then the DRNC shall include the broadcasted PLMN identities of concerned neighbouring cells in the *Multiple PLMN List* IE in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If available, the DRNC shall include the *Frequency Band Indicator* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE.

If there are GSM neighbouring cells to the cell(s) in which a radio link is established, the DRNC shall include the *Neighbouring GSM Cell Information* IE in the RADIO LINK ADDITION RESPONSE message for each of the GSM neighbouring cells. If available the DRNC shall include the *Cell Individual Offset* IE, and if the *Cell Individual Offset* IE alone cannot represent the value of the offset, the DRNC shall also include the *Extended GSM Cell Individual Offset* IE in the *Neighbouring GSM Cell Information IE*. If available the DRNC shall also include the *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

When receiving the *SNA Information* IE in the RADIO LINK ADDITION RESPONSE message, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

If there are GERAN neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *GERAN Cell Capability* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK ADDITION RESPONSE message for each of the GERAN cells.

If there are GERAN Iu-mode neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include, if available, the *GERAN Classmark* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK ADDITION RESPONSE message for each of the GERAN Iu-mode neighbouring cells. Ref. [39] defines when the transmission of the *GERAN Classmark* IE will be required at the initiation of the Relocation Preparation procedure.

If there are E-UTRA neighbouring cells to the cell(s) in which a radio link is established, the DRNC shall include the *Neighbouring E-UTRA Cell Information* IE in the RADIO LINK ADDITION RESPONSE message for each of the E-UTRA neighbouring cells.

**[1.28Mcps TDD – Uplink Synchronisation Parameters LCR:]**

[1.28Mcps TDD – If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

**[1.28Mcps TDD – Shared physical channels Synchronisation Detection:]**

[1.28Mcps TDD – If HS-PDSCH and E-PUCH are configured but no DPCH is configured for the UE, then the DRNS shall include the *Out-of-sync Detection Window* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITON RESPONSE message.]

**[1.28Mcps TDD – Uplink Timing Advance Control LCR:]**

[1.28Mcps TDD – The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK ADDITION RESPONSE message.]

**[1.28Mcps TDD – PowerControl GAP:]**

[1.28Mcps TDD **–** If applied in the DRNS, the DRNC may include the *PowerControl GAP* IE in the RADIO LINK ADDITION RESPONSE message.]

**[1.28Mcps TDD – E-UTRAN Inter-RAT measurement:]**

[1.28Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *Idle Interval Configuration Indicator* IE, if supported, the DRNC shall include the *Idle Interval Information* IE in the RADIO LINK ADDITION RESPONSE message.]

**[1.28Mcps TDD – Inter-frequency/ Inter-RAT measurement:]**

[1.28Mcps TDD – If the RADIO LINK ADDTION REQUEST message includes the *DCH Measurement Type indicator* IE, if supported, the DRNS shall include the *Measurement purpose* IE and the *Measurement occasion pattern sequence parameters* IE in the *DCH Measurement Occasion Information* IE in the RADIO LINK ADDTION RESPONSE message to configure the measurement occasion pattern(s) indicated by the *DCH Measurement Type indicator* IE.]

**MBMS Handling:**

If the UE Link is currently stored in the UE Context and an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in some of the cells identified by the *C-ID* IEs in the RADIO LINK ADDITION REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE in the concerned *RL Information Response* IEs in the RADIO LINK ADDITION RESPONSE message.

If the UE Link is currently stored in the UE Context and an MBMS preferred frequency layer for some active MBMS bearer services contained in the UE Link is set in some of the cells identified by the *C-ID* IEs in the RADIO LINK ADDITION REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Preferred Frequency Layer* IE in the concerned *RL Information Response* IEs in the RADIO LINK ADDITION RESPONSE message.

**[FDD – HS-DSCH Preconfiguration for Enhanced HS Serving Cell Change]**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Preconfiguration Setup* IE in the *RL Information* IE for a Radio Link not indicated by the *HS-PDSCH RL ID* IE in the *HS-DSCH Serving Cell Change Information* IE the DRNS shall, if supported, preconfigure the indicated cells for Enhanced HS Serving Cell Change acoording to [63]:]

- [FDD – The DRNS shall preconfigure sets of HS-SCCH codes on the cells preconfigured for HS-DSCH, primary serving HS-DSCH cell, as well as on the secondary serving HS-DSCH cells. The primary serving HS-DSCH cell is designated through the *C-ID* IE part of the *RL Information* IE in the RADIO LINK ADDITION REQUEST message. The list of secondary serving HS-DSCH cells is designated by the list of *Secondary C-ID* Iesin the *HS-DSCH Preconfiguration Setup* IE part of the *RL Information* IE in the RADIO LINK ADDITION REQUEST message. ]

- [FDD – The number of HS-SCCH codes to preconfigure for each cell may be optionally specified: ]

  - [FDD – by the *Num Primary HS-SCCH Codes* IE in the *HS-DSCH Preconfiguration Setup* IE, for the primary serving HS-DSCH cell]

  - [FDD – by the *Num Secondary HS-SCCH Codes* IE in *the Secondary Cells* IE in the *HS-DSCH Preconfiguration Setup* IE for each of the secondary serving HS-DSCH cells]

- [FDD – If *Num Primary HS-SCCH Codes* IE or *Num Secondary HS-SCCH Codes* IE is not included in the message the number and distribution of codes on primary and any secondary cells shall be preconfigured to satisfy any limitations in [10]. ]

- [FDD – The DRNS shall return these codes in the *Sets of HS-SCCH Codes* IE along with the corresponding per- cell *HS-DSCH-RNTI* IE in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE of the RADIO LINK ADDITION RESPONSE message or in the *Successful RL Information Response* IE of the RADIO LINK ADDITION FAILURE message. ]

- [FDD – The DRNS shall use the first in the numbered list the primary serving HS-DSCH cell's of HS-SCCH codes in the *HS-SCCH Preconfigured Codes* IE sent to the SRNC to signal the Target Cell HS-SCCH Order defined in [18] ].

- [FDD – The DRNS shall include, in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message or in the *Successful RL Information Response* IE of the RADIO LINK ADDITION FAILURE message, IEs according to the rules defined for HS-DSCH Setup at Serving HS-DSCH Radio Link Change and:]

  - [FDD – if *HARQ Preamble Mode* IE is included in the *HS-DSCH Preconfiguration Setup* IE the *HARQ Preamble Mode Activation Indicator* IE]

  - [FDD – if *MIMO Activation Indicator* IE is included in the *HS-DSCH Preconfiguration Setup* IE the Pilot Configuration and MIMO N/M Ratio in *MIMO Information Response* IE]

  - [FDD – if *HS-DSCH MAC-d PDU Size Format* IE is included in the *HS-DSCH Preconfiguration Setup* IE and set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used for the cell in the preconfiguration the *HS-DSCH TB Size Table Indicator* IE for each preconfigured cell.]

- [FDD – if *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *Secondary Cells* IE in the *HS-DSCH Preconfiguration Setup* IE or in the *HS-DSCH Preconfiguration Setup* IE the *SixtyfourQAM DL Usage Indicator* IE for each preconfigured cell]

- [FDD – if *Continuous Packet Connectivity HS-SCCH less Information* IE is included in the *HS-DSCH Preconfiguration Setup* IE the *Continuous Packet Connectivity HS-SCCH less Information Response* IE]

- [FDD – if the *UE with enhanced HS-SCCH support indicator* IE is included in the *HS-DSCH Preconfiguration Setup* IE, then the DRNS shall store this information in the preconfigured configuration.]

- [FDD – the *SixtyfourQAM DL Support Indicator* IE may be included]

- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH Preconfiguration Setup* IE, then the DRNS may store this information in the preconfigured configuration. ]

- [FDD – If the *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where HS-DSCH is preconfigured, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH Preconfiguration Info* IE in the RADIO LINK ADDITION RESPONSE message. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

[FDD – The DRNS shall include in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message or in the *Successful RL Information Response* IE of the RADIO LINK ADDITION FAILURE message the *E-DCH FDD DL Control Channel Information* containing the preconfigured configuration of the E-DCH serving cell according to the rules defined for Serving E-DCH Radio Link Change as follows:]

- [FDD – The DRNS shall allocate for the preconfigured configuration a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE.]

- [FDD – The DRNS may preconfigure the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the serving E-DCH RL and include these values in the *E-DCH FDD DL Control Channel Information* IE.]

[FDD – If the *HS-DSCH Preconfiguration Setup* IE includes the *E-DCH Indicator* IE for a secondary cell, the DRNS shall include in the *Additional E-DCH Preconfiguration Information* IE in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message or in the *Successful RL Information Response* IE of the RADIO LINK ADDITION FAILURE message the *E-DCH FDD DL Control Channel Information* IE containing the preconfigured configuration of the Additional E-DCH serving cell, corresponding to the cell indicated with the *E-DCH Indicator* IE, according to the rules defined for Serving Additional E-DCH Radio Link Change as follows:]

- [FDD – The DRNS shall allocate for the preconfigured configuration a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving Additional E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding *E-AGCH in the E-DCH FDD DL Control Channel Information* IE. ]

- [FDD – The DRNS may preconfigure the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the serving Additional E-DCH RL and include these values in the *E-DCH FDD DL Control Channel Information* IE.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Non-Serving RL Preconfiguration Setup* IE in the *RL Information* IE and:]

- [FDD – if the choice of *new Serving RL* is "New Serving RL in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE and/or *New non-serving RL E-DCH FDD DL Control Channel Information B* IE in the *Non-Serving RL Preconfiguration Info* IE for the RL in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – if the choice of *new Serving RL* is "New Serving RL Not in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information C* IE in the *Non-Serving RL Preconfiguration Info* IE for the RL in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – if the choice of *new Serving RL* is "New Serving RL in the DRNS or New Serving RL Not in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE, the *New non-serving E-DCH FDD DL Control Channel Information B* IE and/or the *New non-serving E-DCH FDD DL Control Channel Information C* for the RL in the *Non-Serving RL Preconfiguration Info* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – if the *Additional E-DCH Non-Serving RL Preconfiguration Setup* IE is included, the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE, the *New non-serving RL E-DCH FDD DL Control Channel Information B* IE and/or the *New non-serving RL E-DCH FDD DL Control Channel Information C* IE according to the choice of new Serving RL in *Additional E-DCH New non-serving RL E-DCH FDD DL Control Channel Information* IE for the additional non serving E-DCH RL in the *Non-Serving RL Preconfiguration Info* IE in the RADIO LINK ADDITION RESPONSE message.]

**General:**

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs [FDD – for which the *Transport Bearer Not Requested Indicator* IE was not included].

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH, then the DRNC shall not establish a transport bearer for the concerned DCH and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK ADDITION RESPONSE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH and:]

- [FDD – if the DRNC establishes a transport bearer for the concerned DCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH being established.]

- [FDD – if the DRNC does not establish a transport bearer for the concerned DCH, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK ADDITION RESPONSE message.]

Depending on local configuration in the DRNS, the DRNC may include in the RADIO LINK ADDITION RESPONSE message the *UTRAN Access Point Position* IE and the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE. If the DRNC includes the *Cell GA Additional Shapes* IE in the RADIO LINK ADDITION RESPONSE message, it shall also include the *Cell GAI* IE.

For each Radio Link established in a cell in which at least one URA Identity is being broadcast, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a URA Information for this cell including the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the *RNC-ID* IEs of all other RNCs that have at least one cell within the URA identified by the *URA ID* IE.

[3.84Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK ADDITION

RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[7.68 Mcps TDD – The DRNC shall include the *Secondary CCPCH Info 7.68 Mcps TDD* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response 7.68 Mcps* IE or *USCH Information Response 7.68 Mcps* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info 7.68 Mcps TDD* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response 7.68 Mcps* IE or *USCH Information Response 7.68 Mcps* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

If the *Permanent NAS UE Identity* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNS shall store the information for the considered UE Context for the lifetime of the UE Context.

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can add the Radio Link on this cell or not.

If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK ADDITION RESPONSE message.

The DRNS shall start receiving on the new RL(s) after the RLs are successfully established.

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the DRNS may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the DRNS shall include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", the DRNS shall use synchronisation procedure B according to subclause 4.3.2.4 in [10]. The DRNS shall select the TPC pattern as if "first RLS indicator" is set to "first RLS" according to subclause 5.1.2.2.1.2 in [10].]

[FDD – If the UE Context is configured for F-DPCH Slot Format operation, then the DRNS shall include the *F-DPCH Slot Format* IE in the RADIO LINK ADDITION RESPONSE message.]

**[FDD – Radio Link Set Handling:]**

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to the RL a unique value for the *RL Set ID* IE which uniquely identifies the RL as an RL Set within the UE Context. In case of E-DCH, the generation of E-HICH information for RLs in different RL Sets shall not be common.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the DRNS shall assign to each RL the same value for the *RL Set ID* IE which uniquely identifies these RLs as members of the same RL Set within the UE Context. In case of E-DCH, the generation of E-HICH related information for all RLs in a RL Set shall be common.]

[FDD – After addition of the new RL(s), the UL out-of-sync algorithm defined in ref. [10] shall, for each of the previously existing and newly established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

[FDD – For each E-DCH RL which has or can have a common generation of E-RGCH information with another RL (current or future) when the DRNS would contain the E-DCH serving RL, the DRNS shall include the *E-DCH RL Set ID* IE in the RADIO LINK ADDITION RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the SRNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

**[FDD – Serving HS-DSCH Radio Link Change:]**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE, then the *HS-PDSCH RL ID* IE indicates the new Serving HS-DSCH Radio Link:]

- [FDD – In the new configuration the DRNS shall allocate the HS-PDSCH resources for the new Serving HS-PDSCH Radio Link.]

- [FDD – The DRNS may include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD – If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.]

- [FDD – The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If a reset of the MAC-hs is not required the DRNS shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- [FDD – If the *HS-DSCH Serving Cell Change Information* IE includes the *Continuous Packet Connectivity HS-SCCH less Informatio*n IE, then:]

  - [FDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectiviy HS-SCCH less operation according to [10].]

  - [FDD – The DRNS shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD – If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the DRNC shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the *HS-DSCH Serving Cell Change Information* IE includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

  - [FDD – The DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DTX operation according to [10].]

  - [FDD – If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DRX operation according to [10].]

- [FDD - If the UE Context is configured with Sixtyfour QAM allowed for the serving HS-DSCH Radio Link and not used in the current configuration and then if the DRNS decides to use 64 QAM in the new configuration, then it shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Information Response* IE in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

**[FDD – HS-DSCH Setup on a New Radio Link at Serving HS-DSCH Radio Link Change:]**

[FDD – If the *HS-DSCH Information* IE is present in the *HS-DSCH Serving Cell Change Information* IE, then:]

- [FDD – The DRNS shall setup the requested HS-PDSCH resources on the *Serving HS-DSCH Radio Link indicated by the HS-PDSCH RL ID* IE.]

- [FDD – the *HS-DSCH Information* IE defines the new HS-DSCH configuration in the DRNS to be used on the new HS-DSCH Radio Link.]

- [FDD – The DRNC shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- [FDD – The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE. If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.]

- [FDD – The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK ADDITION REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer I in RADIO LINK ADDITION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].]

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then ]

  - [FDD – The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

  - [FDD – The DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD – If the *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH FDD Information Response* IE. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Information Response* IE in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [FDD – If the *UE with enhanced HS-SCCH support indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may use:]

  - [FDD – a different HS-SCCH in consecutive TTIs for this UE]

  - [FDD – HS-SCCH orders for the case of HS-SCCH-less operation to this UE]

- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH FDD Information* IE the DRNS may use the supported HSDPA functions for this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes *DL RLC PDU Size Format* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, the *DL RLC PDU Size Format* IE may be used by the DRNS to determine the allocated capacity on user plane as described in [32].]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *Priority Queue Information* IE in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall, if supported, consider the data of the HSDPA Priority Queue for UE Aggregate Maximum Bit Rate Enforcement.]

- [FDD – If the *Single Stream MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE in the *HS-DSCH Serving Cell Change Information* IE, then the DRNS shall activate the Single Stream MIMO for the HS-DSCH Radio Link.]

- [FDD – The DRNC may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC, or earlier. In this case, in the new configuration the DRNS shall, if applicable, de-allocate the HS-PDSCH resources of the old Serving HS-

PDSCH Radio Link. The DRNS shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC. ]

- [FDD – If the *Serving Cell Change CFN* IE is not included then the DRNS shall activate immediately the resources that are allocated for the new serving HS-PDSCH Radio Link, and shall keep active the resources that are allocated for the previous serving HS-PDSCH Radio Link.]

- [FDD – If the requested Serving HS-DSCH Radio Link Change was successful or unsucessful, the DRNS shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[FDD – Secondary Serving HS-DSCH Radio Link Change:]**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Additional HS Cell Information RL Addition* IE, then the *HS-PDSCH RL ID* IE indicates the new Serving HS-DSCH Radio Link:]

- [FDD – In the new configuration the DRNS shall allocate the HS-PDSCH resources for the new secondary serving HS-PDSCH Radio Link. Non cell specific secondary serving Radio Link and non cell specific secondary serving HS-DSCH parameters take the same values as for the serving HS-DSCH cell.]

- [FDD – The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the secondary serving HS-DSCH and include the *HS-SCCH Specific Secondary Serving Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the UE Context is configured with Sixtyfour QAM allowed for the secondary serving HS-DSCH Radio Link and not used in the current configuration and then if the DRNS decides to use 64 QAM in the new secondary serving HS-DSCH Radio Link, then it shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If, in the new configuration, the UE context is configured not to use Sixtyfour QAM for the secondary serving HS-DSCH, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message if it decides to use the octet aligned table defined in [41] for the secondary serving HS-DSCH Transport Block Size signalling.]

**[FDD – Secondary Serving HS-DSCH Setup on a New Radio Link at Serving HS-DSCH Radio Link Change:]**

- [FDD – The DRNS shall setup the requested HS-PDSCH resources on the Secondary Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.]

- [FDD – The *HS-DSCH FDD Secondary Serving Information* IE defines the new secondary serving HS-DSCH configuration in the DRNS to be used on the new secondary serving HS-DSCH Radio Link. Non cell specific secondary serving Radio Link and non cell specific secondary serving HS-DSCH parameters take the same values as for the serving HS-DSCH cell.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Addition*

IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any secondary serving HS-SCCH transmission to this UE.]

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS shall activate the MIMO mode for the secondary serving HS-DSCH Radio Link and the Node B shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the *Single Stream MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS shall activate the Single Stream MIMO mode for the secondary serving HS-DSCH Radio Link.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the secondary serving HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the secondary serving HS-DSCH Radio Link.]

- [FDD – If Sixtyfour QAM will not be used for the secondary serving cell, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message if it decides to use the octet aligned table defined in [41] for secondary serving HS-DSCH Transport Block Size signalling.]

- [FDD – If the *Diversity Mode* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Addition* IE in the RADIO LINK ADDITION REQUEST message the DRNS shall apply cell specific transmit diversity configuration and if the *Diversity Mode* IE is not set to "None" the DRNS shall activate/deactivate the Transmit Diversity for the secondary serving HS-DSCH Radio Link in accordance with the *Transmit Diversity Indicator* IE in the *HS-DSCH FDD Secondary Serving Information* IE.]

- [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the DRNS shall activate the resources that are allocated for the new secondary serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC, or earlier. In this case, in the new configuration the DRNS shall, if applicable, de-allocate the HS-PDSCH resources of the old secondary serving HS-PDSCH Radio Link. The DRNS shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC. ]

- [FDD – If the *Serving Cell Change CFN* IE is not included then the DRNS shall activate immediately the resources that are allocated for the new secondary serving HS-PDSCH Radio Link, and shall keep active the resources that are allocated for the previous secondary serving HS-PDSCH Radio Link.]

- [FDD – If the requested secondary serving HS-DSCH Radio Link Change was successful or unsuccessful, the DRNS shall indicate this in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[FDD – Additional Serving E-DCH Radio Link Change:]**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Additional E-DCH Cell Information Addition* IE in the *Additional E-DCH Cell Information RL Add Req* IE and the *HS-PDSCH RL ID* IE in the *Additional HS Cell Information RL Addition* IE, the *HS-PDSCH RL ID* IE indicates the new Additional Serving E-DCH Radio Link:]

- [FDD – In the new configuration the DRNS shall allocate the E-DCH resources for the new additional serving E-DCH Radio Link on the secondary UL frequency. Non cell specific E-DCH parameters shall take the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – If the old Additional Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Additional Serving E-DCH Radio Link at the activation of the new configuration.]

- [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Additional Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNS may include in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE]

- [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNS may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for any of the other E-DCH Radio Links in the DRNS Communication Context that have not been included in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE.]

- [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the DRNS shall activate the resources that are allocated for the new additional serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC, or earlier. In this case, in the new configuration the DRNS shall, if applicable, de-allocate the E-AGCH resources of the old Additional Serving E-DCH Radio Link. The DRNS shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD- If the *Serving Cell Change CFN* IE is not included then the DRNS shall activate immediately the resources that are allocated for the new additional serving E-DCH Radio Link, and shall keep active the resources that are allocated for the previous additional serving E-DCH Radio Link.]

- [FDD – If the addition of the requested Additional Serving E-DCH Radio Link was successful but the Additional Serving E-DCH Radio Link change was unsuccessful, the DRNS shall indicate this in the *Additional E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[FDD – E-DCH:]**

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *E-DCH RL Indication* IE, set to "E-DCH",in the *RL Information* IE, then for every such RL.]

- [FDD – The DRNS shall setup the E-DCH resources as configured in the UE context.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *RL specific E-DCH Information* IE for an E-DCH MAC-d flow, then if the *Transport Bearer Not Requested Indicator* IE is not included for this E-DCH MAC-d flow, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]

- [FDD – The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for every E-DCH MAC-d flow being established for which the *Transport Bearer Not Requested Indicator* IE was not included.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer Shall not be Established" for an E-DCH MAC-d flow, then the DRNC shall not establish a transport bearer for the concerned E-DCH MAC-d flow and shall include the *Transport Bearer*

*Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for an E-DCH MAC-d flow and:]

  - [FDD – if the DRNC establishes a transport bearer for the concerned E-DCH MAC-d flow, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the E-DCH MAC-d flow being established.]

  - [FDD – if the DRNC does not establish a transport bearer for the concerned E-DCH MAC-d flow, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – The DRNC may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNC may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK ADDITION RESPONSE message, for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK ADDITION RESPONSE message, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

**[FDD – Serving E-DCH Radio Link Change:]**

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD – If the new Serving E-DCH RL is in this DRNS:]

  - [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both and include these E-RNTI identifiers and the Channelisation Code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE for the indicated RL in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD – The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for the initial grant for the new serving E-DCH RL.]

  - [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD – If a serving cell change is performed the RADIO LINK ADDITION RESPONSE message may contain invalid data (see 9.2.2.4C).]

  - [FDD – The DRNS may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK ADDITION RESPONSE message for the new serving E-DCH RL.]

- [FDD – The DRNS may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for any of the other E-DCH

Radio Link in the DRNS Communication Context that have not been included in the *E-DCH FDD DL Control Channel Information* IE in *RL Information Response* IE.]

- [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC, or earlier. In this case, in the new configuration the DRNS shall, if applicable, de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link. The DRNS shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD- If the *Serving Cell Change CFN* IE is not included then the DRNS shall activate immediately the resources that are allocated for the new serving E-DCH Radio Link, and shall keep active the resources that are allocated for the previous serving E-DCH Radio Link.]

- [FDD – If the addition of the requested Serving E-DCH Radio Link was successful but the Serving E-DCH Radio Link change was unsuccessful, the DRNS shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[FDD – E-DPCH Handling:]**

[FDD – If the RADIO LINK ADDITION REQUEST message includes an *E-DPCH Information* IE it defines the new E-DPCH configuration in the DRNS to be used on the new E-DCH Radio Link and the DRNS shall use the new parameters for the related resource allocation operations.]

[FDD – If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the DRNS shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the DRNS shall use the value "127" in the algorithm defined in [10].]

[FDD – If the *E-DPCH Information* IE includes the *E-TFCS Information* IE, the DRNS shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI Validity Indicator* IE the DRNS shall ignore the value in *E-DCH Minimum Set E-TFCI* IE. If the *E-DCH Minimum Set E-TFCI validity indicator* IE is absent DRNS shall use the value for the related resource allocation operation.]

[FDD – If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the DRNS shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the DRNS shall use the E-DPDCH power extrapolation formula defined in [10].]

[FDD – If the RADIO LINK ADDITION REQUEST message includes an *E-DPCH Information* IE, which contains the *Minimum Reduced E-DPDCH Gain Factor* IE, then the DRNS shall use the value to determine the applicable minimum gain factor ($\beta_{ed,k,reduced,min}$) defined in [10]. For the case the *Minimum Reduced E-DPDCH Gain Factor* IE is not available for the UE Context, the DRNS may use the default value defined in [16]. ]

**[FDD – E-DCH Setup on a new Radio Link:]**

[FDD – If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message then:]

- [FDD – the *E-DCH FDD Information* IE defines the new E-DCH FDD configuration in the DRNS to be used on the new E-DCH Radio Link.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall, if supported, consider the data of the related E-DCH Logical Channel for UE Aggregate Maximum Bit Rate Enforcement.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel and use the indicated format in user plane frame structure for E-DCH channels [32] and MAC [41].]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD – If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD – The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD – If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *Bundling Mode Indicator* IE for a E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

- [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

**[FDD – Additional E-DCH Setup:]**

[FDD – If the *Additional E-DCH Cell Information RL Add Req* IE is present in the RADIO LINK ADDITION REQUEST message and the choice of *Setup Or Addition Of E-DCH On Secondary UL Frequency* is "Setup", then the *Additional E-DCH Cell Information Setup* IE defines the new configuration and then:]

- [FDD – If the *C-ID* IE is included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the *C-ID* IE indicates the cell in which the additional E-DCH shall be setup]

  - [FDD – The DRNS shall setup the Additional E-DCH on the secondary uplink frequency and setup the requested Additional E-DCH resources on the Radio Links and in the cells indicated by the *E-DCH Additional RL ID* IE and the *C-ID* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE.]

- [FDD – If the *C-ID* IE is not included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the *E-DCH Additional RL ID* IE indicates the existing RL on which the Additional E-DCH shall be setup.]

  - [FDD – The DRNS shall setup the Additional E-DCH on the Radio Links indicated by the *E-DCH Additional RL ID* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE]

- [FDD – The DRNS shall use for the non cell specific Radio Link related parameters and non cell specific E-DPCH, UL DPCH, E-DCH and F-DPCH parameters the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – If the *UL SIR Target* IE in the *UL DPCH Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE and/or the *DL Power Balancing Information* IE and/or the *Minimum Reduced E-DPDCH Gain Factor* IE in the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE are present, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If the *Secondary UL Frequency Activation State* IE is present in the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE, the DRNS shall use the information as initial activation state of the Radio Links on the secondary uplink frequency.]

- [FDD – If the *Initial DL Tx Power* IE, *the Primary CPICH Ec/No* IE, the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE and/or the *E-HICH Power Offset* IE, is included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If the *Enhanced Primary CPICH Ec/No* IE is included in the *Multicell E-DCH RL Specific Information* IE in the *Additional E-DCH Secondary RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- If the *F-DPCH Slot Format Support Request* IE in the *F-DPCH Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE is included, the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message. If the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE includes the *F-DPCH Slot Format* IE, the DRNS may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]

- [FDD – If the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the *E-DCH Maximum Bitrate* IE, the *E-DCH Minimum Set E-TFCI* IE and/or the *E-DCH Processing Overload Level* IE are present in the *Additional E-DCH FDD Information* IE in the *Additional E-DCH FDD Setup Information* IE in the

*Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If activation of power balancing for the Additional E-DCH RL by the RADIO LINK ADDITION REQUEST message is supported by the DRNS, the DRNS shall include the *DL Power Balancing Activation Indicator* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – For each Additional E-DCH RL not having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall set the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message to a value that uniquely identifies the RL as a RL Set within the UE Context. The generation of E-HICH related information for Additional E-DCH RLs in different RL Sets shall not be common.]

- [FDD – For all Additional E-DCH RLs having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall assign to each Additional E-DCH RL the same value for the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. This value shall uniquely identify these Additional E-DCH RLs as members of the same RL Set within the UE Context. The generation of E-HICH information for all Additional E-DCH RLs in a RL Set shall be common.]

- [FDD – For each Additional E-DCH RL which has or can have a common generation of E-RGCH information with another Additional E-DCH RL (current or future) when the DRNS would contain the Additional E-DCH serving RL, the DRNS shall set a same value to the *E-DCH RL Set ID* IE for the Additional E-DCH RL in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – For every additional E-DCH RL indicated in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the DRNS may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNS may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message and if DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

- [FDD – If the Additional Serving E-DCH Radio Link is configured in the DRNS, then:]

  - [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD – The DRNS may include in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message the the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the Additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE.]

  - [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant E-DCH FDD Information Response* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD – If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the DRNS shall activate the resources that are allocated for the new additional serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC. If the *Serving Cell Change CFN* IE is not included then the DRNS shall activate immediately the resources that are allocated for the new additional serving E-DCH Radio Link]

- [FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link on the secondary UL frequency, the DRNS shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE RADIO LINK ADDITION RESPONSE message.]

- [FDD – If Secondary CPICH may be used as a Phase Reference for this Radio Link on the secondary UL frequency, the DRNS shall include the *Secondary CPICH Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message. If the DRNS doesn't include the *Secondary CPICH Information* IE, it shall not include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used".]

**[FDD – Additional E-DCH RL Addition:]**

[FDD – If the *Additional E-DCH Cell Information RL Add Req* IE is present in the RADIO LINK ADDITION REQUEST message and the choice of *Setup Or Addition Of E-DCH On Secondary UL Frequency* is "Addition", then the *Additional E-DCH Cell Information Addition* IE defines the new configuration and then:]

- [FDD – The DRNS shall setup the requested E-DCH resources as requested, or as configured in the UE context , on the Radio Links indicated by the *E-DCH Additional RL ID* IE in the *Additional E-DCH RL Specific Information To Add* IE. Non cell specific Radio Link related parameters and non cell specific E-DPCH, UL DPCH, E-DCH and F-DPCH parameters shall take the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – if the *Multicell E-DCH Information* IE is included and contains the *Minimum Reduced E-DPDCH Gain Factor* IE, the DRNS shall use the information in the same way as for the information used on the Primary uplink frequency.]

- [FDD – if the *Additional E-DCH FDD Information* IE is included and contains the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the *E-DCH Maximum Bitrate* IE, the *E-DCH Minimum Set E-TFCI* IE and/or the *E-DCH Processing Overload Level* IE, the DRNS shall use the information in the same way as for the information used on the Primary uplink frequency.]

- [FDD – If the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE and/or the *E-HICH Power Offset* IE is included in the *Additional E-DCH RL Specific Information To Add* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing Additional E-DCH RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE in the *Multicell E-DCH RL Specific Information* IE in the *Additional E-DCH RL Specific Information To Add* IE, the DRNS shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new Additional RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported, according to subclause 8.3.15. In this case, the DRNS shall include the *DL Power Balancing Activation Indicator* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. $P_{init}$ shall be set to the power level which is calculated based on the following IEs in the *Additional E-DCH RL Specific Information To Add* IE (if received): *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE in the *Multicell E-DCH RL Specific Information* IE or to the power level which is calculated based on the power relative to the Primary CPICH power used by the existing Additional RLs.]

- [FDD – For each Additional E-DCH RL not having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall set the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message to a value that uniquely identifies the RL as a RL Set within the UE Context. The generation of E-HICH related information for Additional E-DCH RLs in different RL Sets shall not be common.]

- [FDD – For all Additional E-DCH RLs having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall assign to each Additional E-DCH RL the same value for the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. This value shall uniquely identify these Additional E-DCH RLs as members of the same RL Set within the UE Context. The generation of E-HICH information for all Additional E-DCH RLs in a RL Set shall be common.]

- [FDD – For each Additional E-DCH RL which has or can have a common generation of E-RGCH information with another Additional E-DCH RL (current or future) when the DRNS would contain the Additional E-DCH serving RL, the DRNS shall set the same value for the *E-DCH RL Set ID* IE for the Additional E-DCH RL in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message.]

  [FDD – For every additional E-DCH RL indicated in the *Additional E-DCH RL Specific Information To Add* IE the DRNS may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNS may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Add* IE in the RADIO LINK ADDITION RESPONSE message and if DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

- [FDD – If in the *Additional E-DCH RL Specific Information To Add* IE the *Primary CPICH Ec/No* IE or the *Primary CPICH Ec/No* IE and the *Enhanced Primary CPICH Ec/No* IE in the *Multicell E-DCH RL Specific Information* IE measured by the UE are included for an RL in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power for this additional RL. If the *Primary CPICH Ec/No* IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLs.]

**[TDD – HS-DSCH Setup:]**

[TDD – If the *HS-DSCH Information* IE is present in the RADIO LINK ADDITION REQUEST message, then:]

- [TDD – The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.]

- [TDD – The DRNC shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41]. ]

- [TDD – The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [TDD – The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD – The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow. If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNC shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes *DL RLC PDU Size Format* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, the *DL RLC PDU Size Format* IE may be used by the DRNS to determine the allocated capacity on user plane as described in [32].]

- [TDD – The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK ADDITION REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer I in RADIO LINK ADDITION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.]

- [TDD – The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  [1.28 Mcps TDD – *If the MIMO Activation Indicator* IE is included in the *HS-DSCH TDD Information* IE, then, The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link. The DRNS shall decide the SF mode for HS-PDSCH dual stream and include the *MIMO SF Mode for HS-PDSCH dual stream* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28 Mcps TDD – If the *UE TS0 Capability LCR* IE is included in the *HS-DSCH TDD Information* IE, then the DRNC may include the *TS0 HS-PDSCH Indication LCR* IE in the RADIO LINK ADDITION RESPONSE message if HS-PDSCH resources could be allocated on TS0 for the UE.]

**[TDD – Intra-Node B Serving HS-DSCH Radio Link Change:]**

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:]

- [TDD – The DRNC shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD – The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD – *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[TDD – E-DCH:]**

[3.84Mcps TDD, 1.28Mcps TDD and 7.68Mcps TDD – If the [3.84Mcps TDD – *E-DCH Information* IE][1.28Mcps TDD – *E-DCH Information 1.28Mcps* IE] [7.68Mcps TDD – *E-DCH Information 7.68Mcps* IE] is present in the RADIO LINK ADDITION REQUEST message:]

- [TDD – The DRNS shall setup the requested E-DCH resources on the Radio Link indicated by the *E-DCH Serving RL* IE.]

- [TDD – If the *TNL QoS* IE is included in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flows Information TDD* IE, the DRNS shall use this information for the related resource allocation operation.]

- [TDD – If in the RADIO LINK ADDITION REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Non-scheduled" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants are configured for that E-DCH MAC-d flow.]

- [TDD – If in the RADIO LINK ADDITION REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Scheduled" the DRNS shall assume that it may issue scheduled grants for the concerned E-DCH MAC-d flow.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions for the related queue.]

- [1.28Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Maximum Bit Rate LCR* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information TDD* IE in the *E-DCH Information* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel and use the indicated format in user plane frame structure for E-DCH channels [32] and MAC [41].]

- [3.84Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH TDD Maximum Bitrate* IE in the *E-DCH TDD Information* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE in the *E-DCH TDD Information LCR* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE in the *E-DCH TDD Information 7.68Mcps* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [7.68Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information 7.68Mcps* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [1.28Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information LCR* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [TDD – The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the [3.84Mcps TDD – *E-DCH TDD Information* IE][1.28Mcps TDD – *E-DCH TDD Information LCR* IE] in the *E-DCH MAC-d Flows Information TDD* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE in

the *E-DCH TDD Information LCR* IE, then the DRNS shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

- [3.84Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information TDD* IE in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [3.84Mcps TDD – The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information LCR TDD* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD – The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier, the E-AGCH(s) and E-HICH(s) assigned in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

- [7.684Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information* 7.68Mcps *TDD* IE in the *E-DCH Information Response* 7.68Mcps IE in the RADIO LINK ADDITION RESPONSE message.]

- [7.68Mcps TDD – The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

**[3.84Mcps TDD – Intra-Node B Serving E-DCH Radio Link Change:]**

[3.84Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [3.84Mcps TDD – The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

**[1.28Mcps TDD – Intra-Node B Serving E-DCH Radio Link Change:]**

[1.28Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [1.28Mcps TDD – The DRNS shall allocate E-AGCH parameters and E-HICH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE and the *E-HICH Specific Information Response* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

**[7.68Mcps TDD – Intra-Node B Serving E-DCH Radio Link Change:]**

[7.68Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [7.68Mcps TDD – The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response 7.68Mcps TDD* IE in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

**[1.28 Mcps TDD – Continuous Packet Connectivity Handling:]**

[1.28 Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the Continuous Packet *Connectivity DRX Information LCR* IE, then the DRNS shall take account into these parameters to decide the DRX operation related parameters and configure the concerned UE Context for DRX operation according to [21] and include the parameter(s) in the *Continuous Packet Connectivity DRX Information Response LCR* IE in the RADIO LINK ADDITION RESPONSE message.]

[1.28 Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then:]

- [1.28 Mcps TDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for HS-DSCH Semi-Persistent scheduling operation according to [21].]

- [1.28 Mcps TDD – The DRNS shall allocate the HS-SICH information needed for HS-DSCH Semi-Persistent scheduling operation and include the *HS-DSCH Semi-Persistent scheduling Information Response LCR* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent Resource Reservation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall include *Allcoated HS-PDSCH Semi-persistent resource* IE in the RADIO LINK ADDITON RESPONSE message.]

- [1.28 Mcps TDD – The DRNS shall include the *Buffer Size for HS-DSCH Semi-Persistent scheduling* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28 Mcps TDD – The DRNS shall include the *Number of Processes for HS-DSCH Semi-Persistent scheduling* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent scheduling operation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall apply this information for HS-DSCH Semi-Persistent scheduling operation.]

[1.28 Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Semi-Persistent scheduling Information LCR* IE, then:]

- [1.28 Mcps TDD – The DRNS shall configure the Serving E-DCH Radio Link indicated by the *E-DCH Serving RL* IE for E-DCH Semi-Persistent scheduling operation according to [21].]

- [1.28 Mcps TDD – If the *E-DCH Semi-Persistent Resource Reservation Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall include *Allcoated E-DCH Semi-persistent resource* IE in the RADIO LINK ADDITON RESPONSE message.]

- [1.28 Mcps TDD – If the *E-DCH Semi-Persistent scheduling Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall apply this information for E-DCH Semi-Persistent scheduling operation.]

**Response message:**

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message the DRNS shall:

- [FDD –start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4].]

- [TDD – start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates “Separate Indication”:

  - not start any DL transmission for the concerning RL on the Uu interface;

- if the *Delayed Activation* IE indicates “CFN”:

  - [FDD – start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]

- [TDD – start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in ref. [4].]

[1.28 Mcps TDD – if the DRNS assigns one or more PLCCH sequence numbers to the radio link, then the PLCCH assignment(s) shall be sent to the SRNC in the RADIO LINK ADDITION RESPONSE message.]

### 8.3.2.3 Unsuccessful Operation

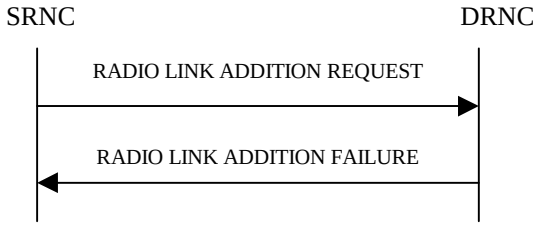



**Figure 8: Radio Link Addition procedure: Unsuccessful Operation**

If the establishment of at least one RL is unsuccessful, the DRNC shall respond with a RADIO LINK ADDITION FAILURE message. DRNC shall include in the RADIO LINK ADDITION FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD – If some RL(s) were established successfully, the DRNC shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.]

[FDD – If the requested Serving HS-DSCH Radio Link Change was successful, or if the addition of the requested serving HS-DSCH Radio Link was successful or existed already but the Serving HS-DSCH Radio Link change was unsuccessful, the DRNS shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message]

[FDD – If the requested secondary serving HS-DSCH Radio Link Change was successful, or if the addition of the requested secondary serving HS-DSCH Radio Link was successful or existed already but the secondary serving HS-DSCH Radio Link change was unsuccessful, the DRNS shall indicate this in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

[FDD – If the requested Serving E-DCH Radio Link Change was successful, or if the addition of the requested serving E-DCH Radio Link was successful or existed already but the Serving E-DCH Radio Link change was unsuccessful, the DRNS shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

[FDD – If the *MIMO Activation Indicator* IE is included and the *Power Offset For S-CPICH for MIMO Request Indicator* IE is not included in the *HS-DSCH FDD Information* IE in the *HS-DSCH Serving Cell Change Information* IE in the RADIO LINK ADDITION REQUEST message or the power offset for S-CPICH for MIMO Request indicator has not been configured in the UE Context but MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, the setup of the serving HS-DSCH Radio Link shall be reported as failed and the DRNC shall include in the RADIO LINK ADDITION FAILURE message the *Cause* IE.]

[FDD – If the requested additional serving E-DCH Radio Link Change was successful, or if the addition of the requested additional serving E-DCH Radio Link was successful or existed already but the additional serving E-DCH Radio Link change was unsucessful, the DRNS shall indicate this in the *Additional E-DCH Secondary Serving Cell Change Information Response* IE in the *Additional E-DCH Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

Typical cause values are:

**Radio Network Layer Causes:**

DL Radio Resources not Available;
UL Radio Resources not Available;
Combining Resources not Available;
Combining not Supported
Cell not Available;
[FDD – Requested Tx Diversity Mode not Supported;]
Power Level not Supported;
CM not Supported;
Reconfiguration CFN not Elapsed;
Number of DL Codes not Supported;

Number of UL codes not Supported;
[FDD – DPC mode change not Supported;]
Cell reserved for operator use;
Delayed Activation not supported;
[FDD – F-DPCH not supported;]
E-DCH not supported;
[FDD – MIMO not supported;]
[FDD – E-DCH TTI2ms not supported;]
[FDD – Continuous Packet Connectivity DTX-DRX operation not available;]
[FDD – Continuous Packet Connectivity UE DTX Cycle not available;]
[FDD – MIMO not available;]
[FDD – F-DPCH Slot Format operation not supported;]
[FDD – E-DPCCH Power Boosting not supported;]
[FDD – SixtyfourQAM DL and MIMO Combined not available;]
[FDD – Multi Cell operation not available;]
[FDD – Multi Cell operation not supported;]
[1.28Mcps TDD – MIMO not supported;]
[1.28Mcps TDD – MIMO not available;]
[1.28Mcps TDD – SixtyfourQAM DL and MIMO Combined not available;]
[FDD – TX diversity for MIMO UE on DL Control Channels not available;]
[FDD – Single Stream MIMO not available;]
[FDD – Multi Cell operation with MIMO not available;]
[FDD – Multi Cell operation with MIMO not supported;]
[FDD – Multi Cell E-DCH Operation not supported;]
[FDD – Multi Cell E-DCH Operation not available;]
[FDD – Multi Cell operation with Single Stream MIMO not available;]
[FDD – Multi Cell operation with Single Stream MIMO not supported;]
[FDD – Cell Specific Tx Diversity Handling For Multi Cell Operation Not Available;]
[FDD – Cell Specific Tx Diversity Handling For Multi Cell Operation Not Supported.]

**Transport Layer Causes:**

Transport Resource Unavailable.

**Miscellaneous Causes:**

Control Processing Overload;
HW Failure;
Not enough User Plane Processing Resources.

### 8.3.2.4 Abnormal Conditions

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available in the DRNC for the considered UE Context, the DRNC shall reject the procedure for this particular Radio Link and send the RADIO LINK ADDITION FAILURE message.

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Transmission Gap Pattern Sequence Status* IEs in the *Active Pattern Sequence Information* IE and it does not address exactly all ongoing compressed mode patterns the DRNS shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the *Cause* IE value “Invalid CM settings”.]

[FDD – If the RADIO LINK ADDITION REQUEST message is used to establish a new RL without compressed mode when compressed mode is active for the existing RL(s) (as specified in subclause 8.3.2.2), and if at least one of the new RLs is to be established in a cell that has the same UARFCN (both UL and DL) as at least one cell with an already existing RL, the DRNS shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value “Invalid CM settings”.]

[FDD – If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to “Individual” in the existing RL(s) and if the *DL Reference Power* IEs are included in the *RL Information* IE but the *DL Reference Power* IE is not present for each RL in the *RL Information* IE, the DRNC shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IEs in the *RL Information* IE but the power balancing is not active in the existing RL(s) or the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s), the DRNC shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE [FDD – or for an E-DCH MAC-d flow in *RL Specific E-DCH Information* IE] included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must" [FDD – or the RL is combined with existing E-DCH RL which transport bearer is not established in the DRNS], the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE nor *RL Specific E-DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "May", the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must Not", the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in [FDD – the *RL Specific E-DCH Information* IE in the *RL Information* IE for the first E-DCH RL][TDD – the *E-DCH MAC-d Flows Information TDD* IE], the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE for an HS-DSCH MAC-d Flow in the *HS-DSCH MAC-d Flows Information* IE, the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE but not the *HS-DSCH FDD Information* IE and the UE Context is not configured for HS-DSCH, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Serving Cell Change CFN* IE but neither the *Serving E-DCH RL* IE nor the *HS-DSCH Serving Cell Change Information* IE, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE but the UE Context is not configured for E-DCH, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message, but the *E-DPCH Information* IE is not present, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the UE Context is not configured for E-DCH, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL-ID* IE not equal to the *RL ID* IE, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE not equal to the *RL ID* IE, the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message contains the *HS-PDSCH RL ID* IE [FDD – in the *HS-DSCH Serving Cell Change Information* IE] and/or *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the DRNS but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *HS-DSCH Serving Cell Change Information* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD – in the *HS-DSCH Serving Cell Change Information*] and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD – in the *HS-DSCH Serving Cell Change Information*] has the value "Indexed MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD – in the *HS-DSCH Serving Cell Change Information*] and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD – in the *HS-DSCH Serving Cell Change Information*] has the value "Flexible MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[FDD – If the RADIO LINK ADDITION REQUEST message contains, for at least one logical channel, the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE and there exist a logical channel for which the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE is not present, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD – If the RADIO LINK ADDITION REQUEST message contains, for at least one logical channel, the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information TDD* IE in the *E-DCH Information* IE, and there exist a logical channel for which the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information TDD* IE in the *E-DCH Information* IE is not present, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH but the DCH is configured to be included as a part of the downlink CCTrCH, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *MIMO Activation Indicator* IE, *Sixtyfour QAM Usage Allowed Indicator* IE set to "Allowed", the *Additional HS Cell Information RL Addition* IE and/or the *Single Stream MIMO Activation Indicator* IE, but does not contain the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size", then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Serving E-DCH RL ID* IE but contains the *Transport Bearer Not Requested Indicator* IE in the RL Specific E-DCH Information for the new Serving E-DCH RL or there is at least one E-DCH MAC-d flow which transport bearer was not configured in the existing E-DCH RL to be combined with the Serving E-DCH RL, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d Flow for a specific RL and the specific RL is combined with the existing RL which the transport bearer is established for the DCH or the E-DCH MAC-d Flow in DRNS, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Additional HS Cell Information RL Addition* IE indicating a seconadry serving cell that is not in the same Node B as the new serving HS-DSCH cell, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Additional HS Cell Information RL Addition* IE and if the HS-DSCH is not configured in the DRNS Communication Context and the *HS-DSCH Information* IE is not present, then the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes *DL RLC PDU Size Format* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD – in the *HS-DSCH Serving Cell Change Information* IE] set to "Flexible RLC PDU Size", *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD – in the *HS-DSCH Serving Cell Change Information* IE] has the value "Indexed MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD – in the *HS-DSCH Serving Cell Change Information* IE] and the *DL RLC PDU Size Format* IE in the *HS-DSCH Information* IE [FDD – in the *HS-DSCH Serving Cell Change Information* IE] has the value "Flexible RLC PDU Size", the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[FDD – If the RADIO LINK ADDITION REQUEST message contains a *MIMO Activation Indicator* IE and a *Single Stream MIMO Activation Indicator* IE in the *HS-DSCH FDD Information* IE in the *HS-DSCH Serving Cell Change Information* IE or in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Addition* IE, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Additional E-DCH Cell Information RL Setup Req* IE and if the *E-DPCH Information* IE is not present or the E-DPCH Information was not configured in the UE Context, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Additional E-DCH Cell Information RL Add Req* IE and there exist a logical channel for which the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE is not present, the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Additional E-DCH Cell Information RL Add Req* IE and the *C-ID* IE is not included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, but the Radio Link indicated by *the E-DCH Additional RL ID* IE is not configured in the current UE context as a Secondary Serving HS-DSCH radio link without any configured Additional E-DCH, the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Diversity Mode* IE in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Addition* IE and the secondary serving HS-DSCH is already configured in the UE Context, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the secondary serving HS-DSCH is not configured in the UE Context and if the RADIO LINK ADDITION REQUEST message contains in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Addition* IE the *Diversity Mode* IE not set to "None" but not the *Transmit Diversity Indicator* or contains the *Transmit Diversity Indicator* but not the *Diversity Mode* IE not set to "None", then the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

## 8.3.3 Radio Link Deletion

### 8.3.3.1 General

The Radio Link Deletion procedure is used to release the resources in a DRNS for one or more established radio links towards a UE.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Deletion procedure may be initiated by the SRNC at any time after establishing a Radio Link.

#### 8.3.3.2 Successful Operation

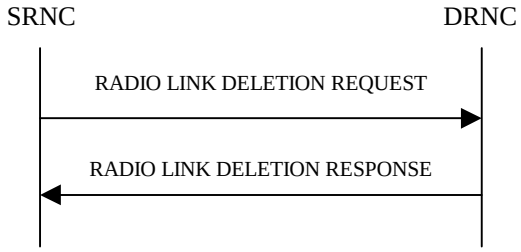



**Figure 9: Radio Link Deletion procedure, Successful Operation**

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the SRNC to the DRNC.

Upon receipt of this message, the DRNS shall delete the radio link(s) identified by the *RL ID* IE(s) in the message, shall release all associated resources and shall respond to the SRNC with a RADIO LINK DELETION RESPONSE message.

If the radio link(s) to be deleted represent the last radio link(s) for the UE in the DRNS and if the UE is not using any common resources in the DRNS, then the DRNC shall release the UE Context.

[FDD – After deletion of the RL(s), the UL out-of-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

[FDD – If the RL indicated by the *RL ID* IE in the RADIO LINK DELETION REQUEST message is the serving HS-DSCH Radio link and a related secondary serving HS-DSCH Radio Link exists in the DRNS, the DRNC shall delete the secondary serving HS-DSCH Radio Link.]

[FDD – If the RL indicated by the *RL ID* IE in the RADIO LINK DELETION REQUEST message is the secondary serving HS-DSCH Radio link, the DRNC shall delete the secondary serving HS-DSCH Radio Link.]

#### 8.3.3.3 Unsuccessful Operation

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#### 8.3.3.4 Abnormal Conditions

If the RL indicated by the *RL ID* IE does not exist, the DRNC shall respond with the RADIO LINK DELETION RESPONSE message.

### 8.3.4 Synchronised Radio Link Reconfiguration Preparation

#### 8.3.4.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one UE-UTRAN connection within a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.4.2 Successful Operation

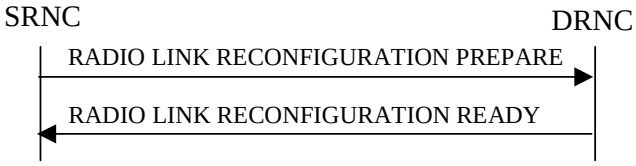



**Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation**

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the DRNC.

Upon receipt, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

If the *UE Aggregate Maximum Bit Rate* IE is contained in the RADIO LINK RECONFIGURATION PREPARE message, the DRNS shall, if supported, store the received UE Aggregate Maximum Bit Rate parameters to control the aggregate data rate of non GBR traffic for this UE.

**DCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Modify* IEs, the DRNS shall treat them each as follows:

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCHs To Modify* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Frame Handling Priority* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Traffic Class* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this DCH indicates the value “RRC”.

- [FDD – If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to “Uplink DCH only”, the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]

- [FDD – If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to " Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs to Modify* IE includes the *TNL QoS* IE for a DCH or a set of co-ordinated DCHs to be modified and if ALCAP is not used, the DRNS may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply in the uplink for the related DCH or set of co-ordinated DCHs.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- [TDD – If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH in the new configuration.]

- [TDD – If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH in the new configuration.]

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

**DCH Addition:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Add* IEs, the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.

- If the *DCH Information* IE includes a *DCHs To Add* IE with multiple *DCH Specific Info* IEs, the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

- [FDD – For each DCH which do not belong to a set of co-ordinated DCHs and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]

- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD – If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD – If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]

- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the DRNS may use this information to determine the transport bearer characteristics to apply for the uplink for the related DCH or set of co-ordinated DCHs.

- The DRNS should store the *Traffic Class* IE received for a DCH to be added in the new configuration. The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value "RRC".

- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [3.84Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]

- [1.28Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]

- [7.68Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD 7.68Mcps* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]

- If the *DCHs To Add* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs To Add* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below

the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs To Add* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.

- [TDD – The DRNS shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]

- [TDD – The DRNS shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration.]

**DCH Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCH To Delete*, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

**Physical Channel Modification:**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD – If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]

- [FDD – If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the DRNS shall apply the new Min UL Channelisation Code Length in the new configuration. The DRNS shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]

- [FDD – If the *UL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration.]

- [FDD – If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the DRNS shall apply the new Uplink DPCCH *Slot Format* to the new configuration.]

- [FDD – If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control when the new configuration is being used.]

- [FDD – If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration.]

- [FDD – If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the DRNS shall apply diversity according to the given value.]

- [FDD – If the *UL DPCH Information* IE includes the *UL DPDCH Indicator For E-DCH Operation* IE and it is set to "UL DPDCH not present", the UL DPDCH resources shall be removed from the configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE and the concerned UE Context is configured to use F-DPCH in the downlink in the old configuration, the DRNS shall configure the concerned UE Context to use DPCH in the downlink in the new configuration. In this case, if at least one Transmission Gap Pattern Sequence is configured with an SF/2 downlink compressed mode method in the new configuration, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE, the DRNS shall use the information contained in it for the power settings of the DL DPCH. In particular, if the received *Inner Loop DL PC Status* IE is set to "Active", the DRNS shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the DRNS shall deactivate the inner loop DL power control for all RLs according to ref. [10]. Furthermore, the DRNC shall include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION READY.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD – If the *DL DPCH Information* IE includes the *Number of DL Channelisation Codes* IE, the DRNS shall allocate given number of Downlink Channelisation Codes per Radio Link and apply the new Downlink Channelisation Code(s) to the new configuration. Each Downlink Channelisation Code allocated for the new configuration shall be included in the RADIO LINK RECONFIGURATION READY message within the *DL Code Information* IE as a *FDD DL Channelisation Code Number* IE when sent to the SRNC. If some Transmission Gap Pattern sequences using "SF/2" method are already initialised in the DRNS, DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message in case the DRNS selects to change the Scrambling code change method for one or more DL Channelisation Code.]

- [FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

- [FDD – If the *DL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the DL when reserving resources for the downlink of the new configuration. The DRNS shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *DL DPCH Slot Format* IE, the DRNS shall apply the new slot format used in DPCH in DL.]

- [FDD – If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the DRNS shall apply the new signalling mode of the TFCI.]

- [FDD – If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the DRNS shall apply the new parameter to define whether fixed or flexible positions of transport channels shall be used in the physical channel.]

- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *F-DPCH Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context to use F-DPCH in the downlink in the new configuration.]

- [FDD – If the *F-DPCH Information* IE includes the *F-DPCH Slot Format Support Request* IE, then the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the RADIO LINK RECONFIGURATION READY message. If the *F-DPCH Information* IE includes the *F-DPCH Slot Format* IE, the DRNC may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated or once the previous Compressed Mode Configuration has been deactivated. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or until the last Radio Link is deleted.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE and the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to "SF/2" and the UE Context is configured to use DPCH in the downlink in the new configuration, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD – If the *E-DPCH Information* IE includes the *Maximum Set of E-DPDCHs* IE, the DRNS shall aplly the contents of the Maximum Set in the new configuration.]

- [FDD – If the *E-DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration]

- [FDD – If the *E-DPCH Information* IE includes the *E-TFCS Information* IE, the DRNS shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI Validity Indicator* IE the DRNS shall ignore the value in *E-DCH Minimum Set E-TFCI* IE. If the *E-DCH Minimum Set E-TFCI validity indicator* IE is absent DRNS shall use the value for the related resource allocation operation.]

- [FDD – If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the DRNS shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the DRNS shall use the E-DPDCH power extrapolation formula defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]

- [FDD – If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the DRNS shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the DRNS shall use the value "127" in the algorithm defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]

- [FDD – If the *E-DPCH Information* IE includes the *E-TTI* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD – If the *E-DPCH Information* IE includes the *E-DPCCH Power Offset* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD – If the *E-DPCH Information* IE includes the *E-RGCH 2-Index-Step* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD – If the *E-DPCH Information* IE includes the *E-RGCH 3-Index-Step* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD – If the *E-DPCH Information* IE includes the *E-DCH HARQ Info* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD – If the *E-DPCH Information* IE includes the *HS-DSCH Configured Indicator* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD – If the *E-DPCH Information* IE includes the *Minimum Reduced E-DPDCH Gain Factor* IE , then the DRNS shall use the value to determine the applicable minimum gain factor ($\beta_{ed,k,reduced,min}$) defined in [10]. For the case the *Minimum Reduced E-DPDCH Gain Factor* IE is not available for the UE Context, the DRNS may use the default value defined in [16]. ]

[FDD – If the RADIO LINK RECONFIGURATION PREPAR message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DTX operation according to [10].]

- [FDD – If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DRX operation according to [10].]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then:]

- [FDD – If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]

- [FDD – If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this value to determine the beginning of uplink transmission in the new configuration according to [10].]

- [FDD – If the *DTX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this information to modify the indicated DTX Information parameter in the new configuration. If the choice of *DTX Information To Modify* IE is "Deactivate", then DRX should be deactived together with DTX.]

- [FDD – If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this information to modify the indicated DRX Information in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectivity HS-SCCH less operation according to [10].]

- [FDD – The DRNS shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the DRNC shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE, then the DRNS shall deactive the Continuous Packet Connectivity HS-SCCH less operation for the HS-DSCH Radio Link.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DRX Information LCR* IE, then the DRNS shall take account into these parameters to decide the DRX operation related parameters and configure the concerned UE Context for DRX operation according to [21] and include the parameter(s) in the *Continuous Packet Connectivity DRX Information Response LCR* IE in the RADIO LINK RECONFIGURATION READY message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DRX Information To Modify LCR* IE, then:]

- [1.28 Mcps TDD – If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DRX Information To Modify LCR* IE, then the DRNS shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]

- [1.28 Mcps TDD – If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DRX Information To Modify LCR* IE, then the DRNS shall use this value to determine the beginning of uplink transmission in the new configuration according to [21].]

- [1.28 Mcps TDD – If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DRX Information To Modify LCR* IE, then the DRNS shall use this information to modify the indicated DRX Information in the new configuration.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then:]

- [1.28 Mcps TDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for HS-DSCH Semi-Persistent scheduling operation according to [21].]

- [1.28 Mcps TDD – The DRNS shall allocate the HS-SICH information needed for HS-DSCH Semi-Persistent scheduling operation and include the *HS-DSCH Semi-Persistent scheduling Information Response LCR* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent Resource Reservation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall include *Allcoated HS-PDSCH Semi-persistent resource IE* in the RADIO LINK RECONFIGURATION READY message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Semi-Persistent scheduling Information LCR* IE, then:]

- [1.28 Mcps TDD – The DRNS shall configure the Serving E-DCH Radio Link indicated by the *E-DCH Serving RL* IE for E-DCH Semi-Persistent scheduling operation according to [21].]

- [1.28 Mcps TDD - If the *E-DCH Semi-Persistent Resource Reservation Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall include *Allocated E-DCH Semi-persistent resource* IE in the RADIO LINK RECONFIGURATION READY message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Semi-Persistent scheduling Information to modify LCR* IE, then:]

- [1.28 Mcps TDD – If the *Transport Block Size List* IE or/and *Repetition Period list* IE is/are included in the *HS-DSCH Semi-Persistent scheduling Information to modify LCR* IE, the DRNS shall modifiy the configuration of Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for HS-DSCH Semi-Persistent scheduling operation according to [21].

- [1.28 Mcps TDD – The DRNS shall allocate the HS-SICH information needed for HS-DSCH Semi-Persistent scheduling operation and include the *HS-DSCH Semi-Persistent scheduling Information Response LCR* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent Resource Reservation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information to modify LCR* IE, then the DRNS shall include *Allcoated HS-PDSCH Semi-persistent resource* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent scheduling operation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information to modify LCR* IE, then the DRNS shall apply this information for HS-DSCH Semi-Persistent scheduling operation.]

- [1.28 Mcps TDD – If the buffer size for HS-DSCH Semi-Persistent scheduling needs to be modified, then the DRNS shall include the *Buffer Size for HS-DSCH Semi-Persistent scheduling* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28 Mcps TDD – If the number of processes for HS-DSCH Semi-Persistent scheduling needs to be modified, then the DRNS shall include the *Number of Processes for HS-DSCH Semi-Persistent scheduling* IE in the RADIO LINK RECONFIGURATION READY message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Semi-Persistent scheduling Information to modify LCR* IE, then:]

- [1.28 Mcps TDD – If the *Repetition Period list* IE is included in the *E-DCH Semi-Persistent scheduling Information to modify LCR* IE, the DRNS shall modifiy the configuration of Serving E-DCH Radio Link indicated by the *E-DCH Serving RL* IE for E-DCH Semi-Persistent scheduling operation according to [21].

- [1.28 Mcps TDD – If the *E-DCH Semi-Persistent scheduling Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information to modify LCR* IE, then the DRNS shall apply this information for E-DCH Semi-Persistent scheduling operation.]

- [1.28 Mcps TDD - If the *E-DCH Semi-Persistent Resource Reservation Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information to modify LCR* IE, then the DRNS shall include *Allocated E-DCH Semi-persistent resource* IE in the RADIO LINK RECONFIGURATION READY message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Semi-Persistent scheduling Deactivate Indicator LCR* IE, then the DRNS shall deactivate the HS-DSCH Semi-Persistent scheduling operation for the HS-DSCH Radio Link.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Semi-Persistent scheduling Deactivate Indicator LCR* IE, then the DRNS shall deactivate the E-DCH Semi-Persistent scheduling operation for the E-DCH Radio Link.]

**[TDD – UL/DL CCTrCH Modification]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Modify* IEs or *DL CCTrCH To Modify* IEs, then the DRNS shall treat them each as follows:]

- [TDD – If any of the *UL CCTrCH To Modify* IEs or *DL CCTrCH To Modify* IEs includes any of the *TFCS* IE, *TFCI coding* IE, *Puncture limit* IE, or *TPC CCTrCH ID* IEs the DRNS shall apply these as the new values, otherwise the previous values specified for this CCTrCH are still applicable.]

- [TDD – If any of the following listed DPCH information IEs are modified in the new prepared configuration, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the IEs indicating the new values: *Repetition Period* IE, *Repetition Length* IE, *TDD DPCH Offset* IE, [3.84Mcps TDD – *UL Timeslot Information* IE,] [1.28Mcps TDD – *UL Timeslot Information LCR* IE,] [7.68 Mcps TDD – *UL Timeslot Information 7.68 Mcps* IE,] [3.84Mcps TDD – *DL Timeslot Information* IE,] [1.28Mcps TDD – *DL Timeslot Information LCR* IE,] [7.68 Mcps TDD – *DL Timeslot Information 7.68 Mcps* IE,] [3.84Mcps TDD – *Midamble Shift And Burst Type* IE,] [1.28Mcps TDD – *Midamble Shift LCR* IE,] [7.68 Mcps TDD – *Midamble Shift And Burst Type 7.68 Mcps* IE,] *TFCI Presence* IE, [3.84Mcps TDD – *TDD Channelisation Code* IE,] [1.28Mcps TDD – and/or *TDD Channelisation Code LCR* IE,] [7.68 Mcps TDD – *TDD Channelisation Code 7.68 Mcps* IE,] [1.28Mcps TDD – *TDD UL DPCH Time Slot Format LCR* IE or *TDD DL DPCH Time Slot Format LCR* IE].]

- [1.28Mcps TDD – If the *UL CCTrCH To Modify* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control according [12] and [22] in the new configuration.]

- [TDD – If any of the *DL CCTrCH To Modify* IEs includes any *TPC CCTrCH ID* IEs, the DRNS shall apply these as the new values, otherwise the previous values specified for this CCTrCH are still applicable.]

- [1.28Mcps TDD – If the *UL CCTrCH to Modify* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall apply this value to the uplink TPC step size in the new configuration.]

- [TDD – If the *DL CCTrCH to Modify* IE includes the *TDD TPC Downlink Step Size* IE, the DRNS shall apply this value to the downlink TPC step size in the new configuration.]

- [1.28 Mcps TDD – if the DRNS modifies, deletes or grants a new PLCCH assignment(s) to the UL CCTrCH, then the resulting PLCCH assignment(s) shall be sent to the SRNC in the RADIO LINK RECONFIGURATION READY message.]

**[TDD – UL/DL CCTrCH Addition]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Add* IEs or *DL CCTrCH To Add* IEs, the DRNS shall include this CCTrCH in the new configuration.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Add* IEs, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the DPCH information in [3.84Mcps TDD – *UL DPCH to be Added* IE/*DL DPCH to be Added* IEs] [1.28Mcps TDD – *UL DPCH to be Added LCR* IE/*DL DPCH to be Added LCR* IEs] [7.68 Mcps TDD – *UL DPCH to be Added 7.68 Mcps* IE/*DL DPCH to be Added 7.68 Mcps* IEs]. [3.84Mcps TDD – If no UL DPCH is active before a reconfiguration which adds an UL DPCH, and if a valid Rx Timing Deviation measurement is known in DRNC, then the DRNC shall include the *Rx Timing Deviation* IE (or the *Rx Timing Deviation 3.84 Mcps Extended* IE if the cell containing the radio link is configured for extended timing advance) in the RADIO LINK RECONFIGURATION READY message]. [7.68 Mcps TDD – If no UL DPCH is active before a reconfiguration which adds an UL DPCH, and if a valid Rx Timing Deviation measurement is known in DRNC, then the DRNC shall include the *Rx Timing Deviation 7.68 Mcps* IE in the RADIO LINK RECONFIGURATION READY message].]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD TPC Downlink Step Size* IE within a *DL CCTrCH To Add* IE, the DRNS shall set the TPC step size of that CCTrCH to that value, otherwise the DRNS shall use the same value as the lowest numbered DL CCTrCH in the current configuration.]

[1.28Mcps TDD – The DRNS shall use the *UL SIR Target* IE in the *UL CCTrCH To Add* IE as the UL SIR value for the inner loop power control for this CCTrCH according [12] and [22] in the new configuration.]

[TDD – If any of the *DL CCTrCH To Add* IEs includes any *TPC CCTrCH ID* IEs, the DRNS shall configure the identified UL CCTrCHs with TPC according to the parameters given in the message.]

[1.28Mcps TDD – If the *UL CCTrCH To Add* IE includes *TDD TPC Uplink Step Size* IE, the DRNS shall apply the uplink TPC step size in the new configuration.]

[1.28 Mcps TDD – if the DRNS grants a PLCCH assignment(s) to the UL CCTrCH, then the resulting PLCCH assignment(s) shall be sent to the SRNC in the RADIO LINK RECONFIGURATION READY message.]

**[TDD – UL/DL CCTrCH Deletion]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Delete* IEs *or DL CCTrCH To Delete* IEs, the DRNS shall remove this CCTrCH in the new configuration, and the DRNC shall include in the RADIO LINK RECONFIGURATION READY message corresponding *UL DPCH to be Deleted* IEs and *DL DPCH to be Deleted* IEs.]

**DL Power Control:**

[FDD – If the *RL Information* IE includes the *DL Reference Power* IEs and power balancing is active, DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported, when the new configuration has been activated, according to subclause 8.3.15, using the *DL Reference Power* IE. If the CFN modulo the value of the *Adjustment Period* IE is not equal to 0, the power balancing continues with the old reference power until the end of the current adjustment period, and the updated reference power shall be used from the next adjustment period.]

[FDD – If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION READY message.]

**[TDD – DSCH Addition/Modification/Deletion:]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add*, *DSCH To Modify* or *DSCH To Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add* IE, then the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

[TDD – The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each added DSCH.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TNL QoS* IE in the *DSCH TDD Information* IE and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Modify* IE, then the DRNS shall treat them each as follows:]

- [TDD – The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified DSCH.]
- [TDD – If the *DSCHs To Modify* IE includes the *CCTrCH ID* IE, then the DRNS shall map the DSCH onto the referenced DL CCTrCH.]
- [TDD – If the *DSCHs To Modify* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DNRS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]
- [TDD – If the *DSCHs To Modify* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]

- [TDD – If the *DSCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]

- [TDD – If the *DSCHs To Modify* IE includes the *TNL QoS* IE and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[3.84 Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[7.68 Mcps TDD – The DRNC shall include the *Secondary CCPCH Info 7.68 Mcps TDD* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info 7.68 Mcps TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[TDD – The DRNC shall include the *DSCH Initial Window Size* IE in the RADIO LINK RECONFIGURATION READY message for each DSCH, if the DRNS allows the SRNC to start transmission of MAC-c/sh SDUs before the DRNS has allocated capacity on user plane as described in [32].]

**[TDD USCH Addition/Modification/Deletion]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Modify*, *USCH To Add* or *USCH To Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, then, the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of USCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, if the *TNL QoS* IE is included and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply for the related USCHs.]

[TDD – The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each added USCH.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Modify* IE, then the DRNS shall treat them each as follows:]

- [TDD – If the *USCH To Modify* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DNRS shall use them to update the set of USCH Priority classes.]

- [TDD – If the *USCH To Modify* IE includes any of the *CCTrCH ID* IE, *Transport Format Set* IE, *BLER* IE or *RB Info* IE, the DRNS shall apply the parameters to the new configuration.]

- [TDD – If the *USCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

- [3.84Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new

configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

- [1.28Mcps TDD – The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

- [7.68Mcps TDD – The DRNC shall include the *Secondary CCPCH Info 7.68Mcps TDD* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info 7.68Mcps TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

- [TDD – if the *TNL QoS* IE is included and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply for the related USCHs.]

- [TDD – The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified USCH.]

**RL Information:**

[FDD – If the *RL Information* IE includes the *DL DPCH Timing Adjustment* IE, the DRNS shall adjust the timing of the radio link accordingly in the new configuration. If the UE Context is configured to use F-DPCH in the downlink in the new configuration, the DRNC may include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION READY message.]

**HS-DSCH Setup:**

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message. [FDD – The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.] [1.28Mcps TDD– The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the

DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32] If RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer I in RADIO LINK RECONFIGURATION PREPARE in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD – The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD – *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then:]

  - [FDD – The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

  - [FDD – The DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

  - [FDD – If the *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up on the cell with a non-zero power offset where the Serving HS-DSCH Radio Link is established, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

- [1.28 Mcps TDD – *If the MIMO Activation Indicator* IE is included in the *HS-DSCH TDD Information* IE, then:]

  - [1.28 Mcps TDD – The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

  - [1.28 Mcps TDD – The DRNS shall decide the SF mode for HS-PDSCH dual stream and include the *MIMO SF Mode for HS-PDSCH dual stream* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [FDD – If the *UE with enhanced HS-SCCH support indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may use:]

  - [FDD – a different HS-SCCH in consecutive TTIs for this UE]

  - [FDD – HS-SCCH orders for the case of HS-SCCH-less operation to this UE]

- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH FDD Information* IE the DRNS may use the supported HSDPA functions for this UE.]

- [FDD – If secondary serving HS-DSCH is applied also in the new configuration, then any changes related to parameters that are common for both the serving and the secondary serving HS-DSCH should be applied also for the secondary serving HS-DSCH.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes *DL RLC PDU Size Format* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, the *DL RLC PDU Size Format* IE may be used by the DRNS to determine the allocated capacity on user plane as described in [32].

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *Priority Queue Information* IE in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, the DRNS shall, if supported, consider the data of the related HSDPA Priority Queue for UE Aggregate Maximum Bit Rate Enforcement.]

- [FDD – If the *Single Stream MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS shall activate the Single Stream MIMO for the HS-DSCH Radio Link.]

- [1.28 Mcps TDD – If the *UE TS0 Capability LCR* IE is included in the *HS-DSCH TDD Information* IE, then the DRNC may include the *TS0 HS-PDSCH Indication LCR* IE in the RADIO LINK RECONFIGURATION READY message if HS-PDSCH resources could be allocated on TS0 for the UE]

**[FDD – Secondary Serving HS-DSCH Setup:]**

[FDD – If the *C-ID* IE is present in the *Additional HS Cell Information RL Reconf Prep* IE in the RADIO LINK RECONFIGURATION PREPARE message, then:]

- [FDD – The DRNS shall setup the requested HS-PDSCH resources on the secondary serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE. Non cell specific secondary serving Radio Link and non cell specific secondary serving HS-DSCH parameters take the same values as for the serving HS-DSCH cell.]

- [FDD – The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any secondary serving HS-SCCH transmission to this UE.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the secondary serving HS-DSCH and the DRNC shall include the *HS-SCCH Specific Secondary Serving Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS shall activate the MIMO mode for the secondary serving HS-DSCH Radio Link and the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Single Stream MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS shall activate the Single Stream MIMO mode for the secondary serving HS-DSCH Radio Link.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the secondary serving HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the secondary serving HS-DSCH Radio Link.]

- [FDD – If, in the new configuration, the UE context is configured not to use Sixtyfour QAM for the secondaery serving HS-DSCH, then the DRNC shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [41] for secondary serving HS-DSCH Transport Block Size signalling.]

- [FDD – If the *Diversity Mode* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, the DRNS shall apply cell specific transmit diversity configuration and if the *Diversity Mode* IE is not set to "None" the DRNS shall activate/deactivate the Transmit Diversity for the secondary serving HS-DSCH Radio Link in accordance with the *Transmit Diversity Indicator* IE in the *HS-DSCH FDD Secondary Serving Information* IE.]

**Intra-DRNS Serving HS-DSCH Radio Link Change:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

The DRNS shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.

The DRNC may include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message. [FDD – The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.] [1.28Mcps TDD – The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

  The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.

  If a reset of the MAC-hs is not required the DRNS shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION READY message.

  [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

  [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

  [TDD – The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD – *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

  [TDD – The DRNC shall include the [3.84 Mcps TDD – *HS-PDSCH Timeslot Specific Information* IE] [1.28 Mcps TDD – *HS-PDSCH Timeslot Specific Information LCR* IE] [7.68 Mcps TDD – *HS-PDSCH Timeslot Specific Information 7.68 Mcps* IE] in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

  [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- The DRNC may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE and the value is set to "allowed" or if *HS-DSCH Information To Modify* IE is not included and the UE Context is configured with Sixtyfour QAM allowed for the serving HS-DSCH Radio Link and not used in the current configuration and then if the DRNS decides to use 64 QAM in the new configuration, then it shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [FDD – If the power offset for S-CPICH for MIMO Request indicator and MIMO activation indicator have been configured in the new configuration and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, the DRNC shall include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

**[FDD – Intra-DRNS Secondary Serving HS-DSCH Radio Link Change:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *C-ID* IE in the *Additional HS Cell Information RL Reconf Prep* IE and the secondary serving HS-DSCH Radio Link has been configured in the DRNS, the *HS-PDSCH RL ID* IE indicates the new Serving HS-DSCH Radio Link:]

- [FDD – The DRNS shall release the HS-PDSCH resources on the old secondary serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new secondary serving HS-DSCH Radio Link. The DRNS shall remove the old secondary serving HS-PDSCH Radio Link if no E-DCH resources are allocated to the RL. Non cell specific secondary serving Radio Link and non cell specific secondary serving HS-DSCH parameters take the same values as for the serving HS-DSCH cell.]

- [FDD – The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the secondary serving HS-DSCH and the DRNC shall include the *HS-SCCH Specific Secondary Serving Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify* IE and the value is set to "allowed" or if *HS-DSCH FDD Secondary Serving Information To Modify* IE is not included and the UE Context is configured with Sixtyfour QAM allowed for the secondary serving HS-DSCH Radio Link and not used in the current configuration and then if the DRNS decides to use 64 QAM for the new secondary serving HS-DSCH Radio Link, then it shall include the *SixtyfourQAM DL Usage Indicator* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If, in the new configuration, the UE context is configured not to use Sixtyfour QAM for the secondary serving HS-DSCH, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [41] for secondary serving HS-DSCH Transport Block Size signalling.]

**[FDD – Additional Serving E-DCH Radio Link Change to an existing additional non serving E-DCH RL:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *C-ID* IE in the *Additional HS Cell Information RL Reconf Prep* IE and an additional non serving E-DCH RL exists in the cell indicated by the *C-ID* IE, the *HS-PDSCH RL ID* IE in the *Additional HS Cell Information RL Reconf Prep* IE indicates the new Additional Serving E-DCH Radio Link.]

- [FDD – If the old Additional Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Serving Additional E-DCH Radio Link at the activation of the new configuration.]

- [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Additional Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message]

- [FDD – The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the Additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE.]

- [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNS may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message for every E-DCH Radio Link on secondary UL frequency in the DRNS. If the DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

**[FDD – Additional Serving E-DCH Radio Link Change to a new RL:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Additional E-DCH RL Specific Information To Add* IE in the *Additional E-DCH Configuration Change Information* IE in the *Additional E-DCH Cell Information RL Reconf Prep* IE and the *C-ID* IE in the *Additional HS Cell Information RL Reconf Prep* IE and there is no radio links in the cell indicated by the *C-ID* IE for the UE context, the *HS-PDSCH RL ID* IE indicates the new Additional Serving E-DCH Radio Link on secondary UL frequency.]

- [FDD – If the old Additional Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Additional Serving E-DCH Radio Link at the activation of the new configuration.]

- [FDD – In the new configuration the DRNS shall allocate the E-DCH resources for the new additional serving E-DCH Radio Link on the secondary UL frequency. Non cell specific E-DCH parameters shall take the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Additional Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNS may include in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE]

- [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message.]

**HS-DSCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE, then:

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE for each HS-DSCH MAC-d flow being modified for which the establishment of one or several new Priority Queues was requested, if the DRNS allows the SRNC to start the transmission of MAC-d PDUs for the Priority Queue(s) being established before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information To Modify* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer I in RADIO LINK RECONFIGURATION PREPARE in the *HS-DSCH*

*Information To Modify* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Traffic Class* IE in the *HS-DSCH Information To Modify* IE for a specific HS-DSCH MAC-d flow, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this specific HS-DSCH MAC-d flow indicates the value "RRC".

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE or *T1* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated values in the new configuration for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-d PDU Size Index* IE in the *Modify Priority Queue* choice, the DRNS shall delete the previous list of MAC-d PDU Size Index values for the related HSDPA Priority Queue and use the MAC-d PDU Size Index values indicated in the *MAC-d PDU Size Index* IE in the new configuration.

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE, the *ACK-NACK Repetition Factor* IE, the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated CQI Feedback Cycle k value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD – If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use the indicated power offset in the new configuration.]

- [FDD – If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH codes corresponding to the HS-DSCH. The DRNC shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *HS-DSCH Information To Modify* IE includes the *HS-PDSCH Code Change Grant* IE, then the DRNS may modify the HS-PDSCH codes corresponding to the HS-DSCH. The DRNC shall then report the codes which are used in the new configuration specified in the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the concerned DRNS is not in Continuous Packet Connectivity HS-SCCH less mode, the SRNC shall not include the *HS-PDSCH Code Change Grant* IE in the *HS-DSCH Information To Modify* IE.]

- [TDD – If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH parameters corresponding to the HS-DSCH. The DRNC shall then report the values for the parameters which are used in the new configuration specified in the [3.84Mcps TDD – *HS-SCCH*

*Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD – *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use, in the new configuration, the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Physical Layer Category* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information in the new configuration.]

- [FDD – If the *MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then:]

    - [FDD – The DRNS shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in the new configuration in accordance with the *MIMO Mode Indicator* IE.]

    - [FDD – If the *MIMO Mode Indicator* IE is set to "Activate", then the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

    - [FDD – If the *MIMO Mode Indicator* IE is set to "Activate" and *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH FDD Information Response* IE. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

- [FDD – The DRNC may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD – If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [1.28Mcps TDD – If the *MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then:]

    - [1.28Mcps TDD – The DRNS shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in the new configuration in accordance with the *MIMO Mode Indicator* IE.]

    - [1.28 Mcps TDD – If the *MIMO Mode Indicator* IE is set to "Activate", then the DRNS shall decide the SF mode for HS-PDSCH dual stream and include the *MIMO SF Mode for HS-PDSCH dual stream* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28Mcps TDD – The DRNC may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD – Any secondary serving HS-DSCH that was applied in the old configuration shall remain in the new configuration unless it is explicitly removed.]

- [FDD – If secondary serving HS-DSCH is applied also in the new configuration, then any changes related to parameters that are common for both the serving and the secondary serving HS-DSCH should be applied also for the secondary serving HS-DSCH.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes *DL RLC PDU Size Format* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, the *DL RLC PDU Size Format* IE may be used by the DRNS to determine the allocated capacity on user plane as described in [32].

- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH Information To Modify* IE the DRNS may use the supported HSDPA functions for this UE.]

- [FDD – If the *Single Stream MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then the DRNS shall activate/deactivate the Single Stream MIMO for the HS-DSCH Radio Link in accordance with the *Single Stream MIMO Mode Indicator* IE.]

**[FDD – Secondary Serving HS-DSCH Modification:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH FDD Secondary Serving Information To Modify* IE, then:]

- [FDD – If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any secondary serving HS-SCCH transmission to this UE.]

- [FDD – If the *HS-DSCH FDD Secondary Serving Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH codes corresponding to the secondary serving HS-DSCH. The DRNC shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Secondary Serving Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *MIMO Mode Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify* IE, then the DRNS shall activate/deactivate the MIMO mode for the secondary serving HS-DSCH Radio Link in accordance with the *MIMO Mode Indicator* IE.]

- [FDD – If the *MIMO Mode Indicator* IE is set to "Activate", then the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Single Stream MIMO Mode Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify* IE, then the DRNS shall activate/deactivate the Single Stream MIMO mode for the secondary serving HS-DSCH Radio Link in accordance with the *Single Stream MIMO Mode Indicator* IE.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the secondary serving HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the secondary serving HS-DSCH Radio Link.]

- [FDD – If, in the new configuration, the UE context is configured not to use Sixtyfour QAM for the secondaery serving HS-DSCH, then the DRNC shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the

RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [41] for secondary serving HS-DSCH Transport Block Size signalling.]

- [FDD – If the *Diversity Mode* IE is included, then:]
    - [FDD- the DRNS shall apply cell specific transmit diversity configuration for the secondary serving HS-DSCH radio link according to *Diversity Mode* IE and *Transmit Diversity Indicator* IE in the *HS-DSCH FDD Secondary Serving Information To Modify* IE,]
    - [FDD – If the *Diversity Mode* IE is not set to "None", the DRNS shall apply diversity for the secondary serving HS-DSCH radio link according to the value given in the *Transmit Diversity Indicator* IE in the *HS-DSCH FDD Secondary Serving Information To Modify* IE.]
- [FDD – If the *Non Cell Specific Tx Diversity* IE equals "Tx Diversity" is included, the DRNS shall apply non cell specific transmit diversity configuration and reconfigure the transmit diversity setting for the secondary serving HS-DSCH radio link to the same value as defined for the serving HS-DSCH radio link in the new configuration.]

**[FDD – Secondary Serving HS-DSCH Removal:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Secondary Serving Remove* IE in the *Additional HS Cell Information RL Reconf Prep* IE, then the indicated secondary serving HS-DSCH Radio Link shall be removed.]

**HS-DSCH MAC-d Flow Addition/Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the UE Context, then the DRNC shall delete the HS-DSCH configuration from the UE Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The DRNS may use the Traffic Class IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If TrCH Source Statistics Descriptor IE is present with the value "RRC" in the HS-DSCH MAC-d Flows Information IE, then the DRNC should ignore the Traffic Class IE.
- If the TNL QoS IE is included for a MAC-d flow and if ALCAP is not used, the TNL QoS IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.
- The DRNC shall include the HS-DSH Initial Capacity Allocation IE in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being added, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If the UE context is configured to use the "Flexible MAC-d PDU Size" format for the HS-DSCH, then DRNC shall only set in the HS-DSCH Initial Capacity Allocation IE the values for the peer of Scheduling Priority Indicator IE and Maximum MAC-d PDU Size Extended IE to the values of the corresponding peer I in RADIO LINK RECONFIGURATION PREPARE message in the HS-DSCH MAC-d Flows To Add IE for a Priority Queue including Scheduling Priority Indicator IE and Maximum MAC-d PDU Size Extended IE.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the MAC-hs Guaranteed Bit Rate IE in the HS-DSCH MAC-d Flows To Add IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the Discard Timer IE for a Priority Queue in the HS-DSCH MAC-d Flows To Add IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the Maximum MAC-d PDU Size Extended IE for a Priority Queue in the HS-DSCH MAC-d Flows To Add IE, then the DRNC shall ignore the SID IE and MAC-d PDU Size IE in the MAC-d PDU Size Index IE and use Maximum MAC-d PDU Size Extended IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The DRNC may include the HARQ Memory Partitioning IE in the RADIO LINK RECONFIGURATION READY message. [FDD – The HARQ Memory Partitioning IE may contain the HARQ Memory Partitioning Information Extension For MIMO IE.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes DL RLC PDU Size Format IE for a Priority Queue in the HS-DSCH MAC-d Flows To Add IE, the DL RLC PDU Size Format IE may be used by the DRNS to determine the allocated capacity on user plane as described in [32].

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, the DRNS shall, if supported, consider the data of the related HSDPA Priority Queue for UE Aggregate Maximum Bit Rate Enforcement.]

**[FDD – HS-DSCH Preconfiguration for Enhanced HS Serving Cell Change]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Preconfiguration Setup* IE in the *RL Information* IE the DRNS shall, if supported, preconfigure the indicated cells for Enhanced HS Serving Cell Change acoording to [63]:]

- [FDD – The DRNS shall preconfigure sets of HS-SCCH codes on the cells preconfigured for HS-DSCH, primary serving HS-DSCH cell, as well as on the secondary serving HS-DSCH cells. The primary serving HS-DSCH cell is designated through the *C-ID* IE part of the *RL Information* IE in the RADIO LINK RECONFIGURATION PREPARE message. The list of secondary serving HS-DSCH cells is designated by the list of *Secondary C-ID* IEsin the *HS-DSCH Preconfiguration Setup* IE part of the *RL Information* IE in the RADIO LINK RECONFIGURATION PREPARE message.]

- [FDD – The number of HS-SCCH codes to preconfigure for each cell may be optionally specified: ]

  - [FDD – by the *Num Primary HS-SCCH Codes* IE in the *HS-DSCH Preconfiguration Setup* IE, for the primary serving HS-DSCH cell.]

  - [FDD – by the *Num Secondary HS-SCCH Codes* IE in *the Secondary Cells* IE in the *HS-DSCH Preconfiguration Setup* IE for each of the secondary serving HS-DSCH cells.]

- [FDD – If *Num Primary HS-SCCH Codes* IE or *Num Secondary HS-SCCH Codes* IE is not included in the message the number and distribution of codes on primary and any secondary cells shall be preconfigured to satisfy any limitations in [10]. ]

- [FDD – The DRNS shall return these codes in the *Sets of HS-SCCH Codes* IE along with the corresponding per-cell *HS-DSCH-RNTI* IE in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE of the RADIO LINK RECONFIGURATION READY.]

- [FDD – The DRNS shall use the first in the numbered list the primary serving HS-DSCH cell's of HS-SCCH codes in the *HS-SCCH Preconfigured Codes* IE sent to the SRNC to signal the Target Cell HS-SCCH Order defined in [18].]

- [FDD – The DRNS shall include, in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK RECONFIGURATION READY message, IEs according to the rules defined for HS-DSCH Setup at Serving HS-DSCH Radio Link Change and:]

  - [FDD – if *HARQ Preamble Mode* IE is included in the *HS-DSCH Preconfiguration Setup* IE the HARQ Preamble Mode Activation Indicator IE.]

  - [FDD – if *MIMO Activation Indicator* IE is included in the *HS-DSCH Preconfiguration Setup* IE the *MIMO N/M Ratio* IE.]

- [FDD – if *HS-DSCH MAC-d PDU Size Format* IE is included in the *HS-DSCH Preconfiguration Setup* IE and set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used for the cell in the preconfiguration the *HS-DSCH TB Size Table Indicator* IE for each preconfigured cell.]

- [FDD – if *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *Secondary Cells* IE in the *HS-DSCH Preconfiguration Setup* IE or in the *HS-DSCH Preconfiguration Setup* IE the *SixtyfourQAM DL Usage Indicator* IE for each preconfigured cell.]

- [FDD – if *Continuous Packet Connectivity HS-SCCH less Information* IE is included in the *HS-DSCH Preconfiguration Setup* IE the *Continuous Packet Connectivity HS-SCCH less Information Response* IE.]

- [FDD – if the *UE with enhanced HS-SCCH support indicator* IE is included in the *HS-DSCH Preconfiguration Setup* IE, then the DRNS shall store this information in the preconfigured configuration.]

- [FDD – the *SixtyfourQAM DL Support Indicator* IE may be included.]

- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH Preconfiguration Setup* IE, then the DRNS may store this information in the preconfigured configuration.]

- [FDD – The DRNS shall include in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK RECONFIGURATION READY message the *E-DCH FDD DL Control Channel Information* containing the preconfigured configuration of the E-DCH serving cell according to the rules defined for Serving E-DCH Radio Link Change as follows:]

  - [FDD – The DRNS shall allocate for the preconfigured configuration a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE.]

  - [FDD – The DRNS may preconfigure the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the serving E-DCH RL and include these values in the *E-DCH FDD DL Control Channel Information* IE.]

- [FDD – If the *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up on the cell where HS-DSCH is preconfigured, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH Preconfiguration Info* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Non-Serving RL Preconfiguration Setup* IE in the *RL Information* IE and:]

- [FDD – if the choice of *new Serving RL* is "New Serving RL in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE and/or *New non-serving RL E-DCH FDD DL Control Channel Information B* IE in the *Non-Serving RL Preconfiguration Info* IE for the RL in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – if the choice of *new Serving RL* is "New Serving RL Not in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information C* IE in the *Non-Serving RL Preconfiguration Info* IE for the RL in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – if the choice of *new Serving RL* is "New Serving RL in the DRNS or New Serving RL Not in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE, the *New non-serving RL E-DCH FDD DL Control Channel Information B* IE and/or the *New non-serving RL E-DCH FDD DL Control Channel Information C* for the RL in the *Non-Serving RL Preconfiguration Info* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – if the *Additional E-DCH Non-Serving RL Preconfiguration Setup* IE is included, the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE, the *New non-serving RL E-DCH FDD DL Control Channel Information B* IE and/or the *New non-serving RL E-DCH FDD DL Control Channel Information C* IE according to the choice of new Serving RL in *Additional E-DCH New non-serving RL E-DCH FDD DL Control Channel Information* IE for the additional non serving E-DCH RL in the *Non-Serving RL Preconfiguration Info* IE in the RADIO LINK RECONFIGURATION READY message.]

**[FDD – Enhanced HS Serving Cell Change:]**

[FDD –-Upon receipt of the RADIO LINK RECONFIGURATION PREPARE message, if the Enhanced HS Serving Cell Change is preconfigured in the DRNS for the UE context, the DRNS may execute the Enhanced HS Serving Cell Change procedure according to [63.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Enhanced HS Serving CC Abort* IE in the *HS-DSCH Information To Modify* IE or the *HS-DSCH FDD Information* IE then the DRNS shall not execute the synchronized Enhanced HS Serving Cell Change procedure when performing the Serving HS-DSCH Radio Link Change or the HS-DSCH Setup.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Non-Serving RL Preconfiguration Removal* IE, the DRNS shall remove the corresponding preconfigured E-DCH DL Control Channel Information according to the information.]

**[FDD – E-DCH Setup:]**

[FDD – If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message then:]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall, if supported, consider the data of the related E-DCH Logical Channel for UE Aggregate Maximum Bit Rate Enforcement.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel and use the indicated format in user plane frame structure for E-DCH channels [32] and MAC [41].]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being “E-DCH Non-Scheduled Transmission Grant” for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD – If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being “E-DCH Scheduled Transmission Grant” for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD – The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value “RRC” in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD – If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for a E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to “Bundling” and the *E-TTI* IE is set to “2ms”, then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *SixteenQAM UL Operation Indicator* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

    - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

**[FDD – E-DCH Radio Link Handling:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

- [FDD – The DRNC shall setup the E-DCH resources, as requested or as configured in the UE context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD – The DRNC may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNC may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD – The DRNC shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* IE set to "Non E-DCH", in the *RL Information* IE.]

- [FDD – For each RL for which the *E-DCH RL Indication* IE is set to "E-DCH", and which has or can have a common generation of E-RGCH information with another RL (current or future) when the DRNS would contain the E-DCH serving RL, the DRNS shall include the *E-DCH RL Set ID* IE in the RADIO LINK RECONFIGURATION READY message. The value of the *E-DCH RL Set ID* IE shall allow the SRNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

**[FDD – Serving E-DCH Radio Link Change:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Serving E-DCH RL ID* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD – If the old Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link at the activation of the new configuration.]

- [FDD – If the new Serving E-DCH RL is within this DRNS:]

  - [FDD – the DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *RL Information Response* IE for the indicated RL in the RADIO LINK RECONFIGURATION READY message.]

  - [FDD – The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the new serving E-DCH RL.]

  - [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

  - [FDD – If a serving cell change is performed the RADIO LINK RECONFIGURATION READY message may contain invalid data (see 9.2.2.4C).]

  - [FDD – The DRNS may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION READY message for the new serving E-DCH RL.]

- [FDD – The DRNS may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every E-DCH Radio Links in the DRNS.]

- [FDD – If the DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

**[FDD – E-DCH Modification:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD – If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d PDU Size Format* IE in the *E-DCH FDD Information To Modify* IE, then the DRNS shall use the indicated format in user plane frame structure for E-DCH channels [32] and MAC [41].]

- [FDD – If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD –If the *Traffic Class* IE is included for an E-DCH MAC-d flow then the DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this specific E-DCH MAC-d flow indicates the value “RRC”.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Data Description Indicator* IE, the DRNC shall use the DDI values indicated in the *Data Description Indicator* IE in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH FDD Information To Modify* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information To Modify* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow in the *E-DCH FDD Information To Modify* IE, then the DRNS shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the DRNS shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the DRNS shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also removed.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Modify* IE, the DRNS shall use this information to modify the indicated logical channels:]

  - [FDD – If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the DRNS shall apply the values in the new configuration.]

  - [FDD – If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the DRNS shall apply the values in the new configuration.]

  - [FDD – If the *E-DCH Logical Channel To Modify* IE includes the *Maximum MAC-d PDU Size Extended* IE, the DRNS shall apply the value in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the E-DCH serving RL is in this DRNS, the DRNS may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-e Reset Indicator* IE in the *E-DCH FDD Information To Modify* IE, then the DRNS shall use this value to determine whether MAC-e(or MAC-i) Reset is performed in the UE for sending the HARQ Failure Indication.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *SixteenQAM UL Operation Indicator* IE in the *E-DCH FDD Information To Modify* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE]

  - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH DL Control Channel Grant Information* IE in the *E-DCH FDD Information To Modify* IE, the DRNS may modify E-AGCH Channelisation Code, E-RGCH/E-HICH Channelisation Code, E-RGCH Signature Sequence and/or E-HICH Signature Sequence for the E-DCH RL indicated by the *E-DCH RL ID* IE. The DRNC shall then report the modified configuration which is used in the new configuration specified in the *E-DCH FDD DL Control Channel Information* IE for each E-DCH RL in the RADIO LINK RECONFIGURATION READY message.]

**[FDD – E-DCH MAC-d Flow Addition:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Add* IE, then the DRNS shall use this information to add the indicated E-DCH MAC-d flows.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH MAC-d Flows To Add* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD – The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information IE* in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *E-DCH Logical Channel Information IE* in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall, if supported, consider the data of the related E-DCH Logical Channel for UE Aggregate Maximum Bit Rate Enforcement.]

**[FDD – E-DCH MAC-d Flow Deletion:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an E-DCH *MAC-d Flows To Delete* IEs, then the DRNS shall use this information to delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration shall also be removed.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the UE Context, then the DRNC shall delete the E-DCH configuration from the UE Context and release the E-DCH resources.]

**[FDD – Additional E-DCH Setup:]**

[FDD – If the *Additional E-DCH Cell Information RL Reconf Prep* IE is present in the RADIO LINK RECONFIGURATION PREPARE message and the choice of *Setup, Configuration Change or Removal of E-DCH On Secondary UL Frequency* is “Setup”, then the *Additional E-DCH Cell Information Setup* IE defines the new configuration and then:]

- [FDD – If the *C-ID* IE is included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the *C-ID* IE indicates the cell in which the additional E-DCH shall be setup]

  - [FDD – The DRNS shall setup the Additional E-DCH on the secondary uplink frequency and setup the requested Additional E-DCH resources on the Radio Links and in the cells indicated by the *E-DCH Additional RL ID* IE and the *C-ID* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE.]

- [FDD – If the *C-ID* IE is not included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the *E-DCH Additional RL ID* IE indicates the existing RL on which the Additional E-DCH shall be setup.]

  - [FDD – The DRNS shall setup the additional E-DCH on the Radio Links indicated by the *E-DCH Additional RL ID* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE]

- [FDD – The DRNS shall use for the non cell specific Radio Link related parameters and non cell specific E-DPCH, UL DPCH, E-DCH and F-DPCH parameters the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – If the *UL SIR Target* IE in the *UL DPCH Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE and/or the *DL Power Balancing Information* IE and/or the *Minimum Reduced E-DPDCH Gain Factor* IE in the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE are present, the DRNS shall use the information in the same same way as for the information used on Primary uplink frequency.]

- [FDD – If the *Secondary UL Frequency Activation State* IE is present in the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE, the DRNS shall use the information as initial activation state of the Radio Links on the secondary uplink frequency.]

- [FDD – If the *Initial DL Tx Power* IE, the *Primary CPICH Ec/No* IE, the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE and/or the *E-HICH Power Offset* IE is included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If the *Enhanced Primary CPICH Ec/No* IE is included in the *Multicell E-DCH RL Specific Information* IE in the *Additional E-DCH Secondary RL Specific Information To Setup* IE in the *Additional E-DCH FDD*

*Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If the *F-DPCH Slot Format Support Request* IE in the *F-DPCH Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE is included, the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RL Reconf* IE in the RADIO RECONFIGURATION READY message. If the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE includes the *F-DPCH Slot Format* IE, the DRNS may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]

- [FDD – If the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the *E-DCH Maximum Bitrate* IE , the *E-DCH Minimum Set E-TFCI* IE and/or the *E-DCH Processing Overload Level* IE are present in the *Additional E-DCH FDD Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If activation of power balancing for the Additional E-DCH RL by the RADIO LINK RECONFIGURATION PREPARE message is supported by the DRNS, the DRNS shall include the *DL Power Balancing Activation Indicator* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – For each Additional E-DCH RL not having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall set the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message to a value that uniquely identifies the RL as a RL Set within the UE Context. The generation of E-HICH related information for Additional E-DCH RLs in different RL Sets shall not be common.]

- [FDD – For all Additional E-DCH RLs having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall assign to each Additional E-DCH RL the same value for the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message. This value shall uniquely identify these Additional E-DCH RLs as members of the same RL Set within the UE Context. The generation of E-HICH information for all Additional E-DCH RLs in a RL Set shall be common.]

- [FDD – For each Additional E-DCH RL which has or can have a common generation of E-RGCH information with another Additional E-DCH RL (current or future) when the DRNS would contain the Additional E-DCH serving RL, the DRNS shall set a same value to the *E-DCH RL Set ID* IE for the Additional E-DCH RL in the *Additional E-DCH FDD Information Response* IE in the *AdditionalE-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message]

- [FDD – For every additional E-DCH RL indicated in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the DRNS may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNS may include the corresponding *E-RGCH Signature Sequence* IE for each Additional E-DCH RL in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *AdditionalE-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message and if DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

- [FDD – If the Additional Serving E-DCH Radio Link is configured in the DRNS, then:]

  - [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message.]

  - [FDD – The DRNS may include in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the Additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE.]

- [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link on the secondary UL frequency, the DRNS shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE RADIO LINK RECONFIGURATION READY message.]

- [FDD – If Secondary CPICH may be used as a Phase Reference for this Radio Link on the secondary UL frequency, the DRNS shall include the *Secondary CPICH Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message. If the DRNS doesn't include the *Secondary CPICH Information* IE, it shall not include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used".]

**[FDD – Additional E-DCH Configuration Change]**

[FDD – If the *Additional E-DCH Cell Information RL Reconf Prep* IE is present in the RADIO LINK RECONFIGURATION PREPARE message and the choice of *Setup, Configuration Change or Removal of E-DCH On Secondary UL Frequency* is "Configuration Change", then the *Additional E-DCH Cell Information Configuration Change* IE defines the new configuration and then:]

- [FDD – If the *UL Scrambling Code* IE and/or the *UL SIR Target* IE are present in the *UL DPCH Information* IE in the *Additional E-DCH Configuration Change Information* IE and/or id the *Minimum Reduced E-DPDCH Gain Factor* IE is present in the *Multicell E-DCH Information* IE in the *Additional E-DCH Configuration Change Information* IE, the DRNS shall use the information in the same way as for the information that is used on the Primary uplink frequency.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *F-DPCH Information* IE in the *Additional E-DCH Configuration Change Information* IE, then:]

  - [FDD – The DRNS shall configure the concerned UE Context to use F-DPCH in the downlink in the new configuration.]

  - [FDD – If the *F-DPCH Information* IE includes the *F-DPCH Slot Format Support Request* IE, then the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the *Additional E-DCH FDD Information Response* IE for new RLs on the secondary UL frequency or in the *Additional Modified E-DCH FDD Information Response* IE for modified RLs in the RADIO LINK RECONFIGURATION READY message. If the *Multicell E-DCH Information* IE in the *Additional E-DCH Configuration Change Information* IE includes the *F-DPCH Slot Format* IE, the DRNS may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]

**[FDD – Additional E-DCH RL Addition:]**

[FDD – If the *Additional E-DCH RL Specific Information To Add* IE is present in the *Additional E-DCH Configuration Change Information* IE, then:]

- [FDD – The DRNS shall setup the E-DCH resources, as requested or as configured in the UE context, on the Radio Links indicated by the *E-DCH Additional RL ID* IE. Non cell specific Radio Link related parameters and non cell specific E-DPCH, UL DPCH, E-DCH and F-DPCH parameters shall take the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – If the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE, the *E-HICH Power Offset* IE is included, the DRNS shall use the information in the same way as for information is used on the Primary uplink frequency.]

- [FDD – If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing Additional E-DCH RL(s) and the RADIO LINK RECONFIGURATION PREPARE message includes the *DL Reference Power* IE in the *Multicell E-DCH RL Specific Information* IE, the DRNS shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new Additional RL(s), if activation of

power balancing by the RADIO LINK RECONFIGURATION PREPARE message at RL addition on secondary UL frequency is supported, according to subclause 8.3.15. In this case, the DRNS shall include the *DL Power Balancing Activation Indicator* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. $P_{init}$ shall be set to the power level which is calculated based on the following IEs (if received): *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE in the *Multicell E-DCH RL Specific Information* IE or to the power level which is calculated based on the power relative to the Primary CPICH power used by the existing Additional RLs.]

- [FDD – For each Additional E-DCH RL not having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall set the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message to a value that uniquely identifies the RL as a RL Set within the UE Context. The generation of E-HICH related information for Additional E-DCH RLs in different RL Sets shall not be common.]

- [FDD – For all Additional E-DCH RLs having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall assign to each Additional E-DCH RL the same value for the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message. This value shall uniquely identify these Additional E-DCH RLs as members of the same RL Set within the UE Context. The generation of E-HICH information for all Additional E-DCH RLs in a RL Set shall be common.]

- [FDD – For each Additional E-DCH RL which has or can have a common generation of E-RGCH information with another Additional E-DCH RL (current or future) when the DRNS would contain the Additional E-DCH serving RL, the DRNS shall set a same value to the *E-DCH RL Set ID* IE for the Additional E-DCH RL in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message]

- [FDD – For every additional E-DCH RL indicated in the *Additional E-DCH RL Specific Information To Add* IE, the DRNS may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNS may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message and if DRNS has no valid data for the *E-RGCH/ E-HICH Channelisation Code* IE, then it shall insert the *E-RGCH/ E-HICH Channelisation Code Validity Indicator* IE to indicate that the *E-RGCH/ E-HICH Channelisation Code* IE contains invalid data.]

- [FDD – If the *Primary CPICH Ec/No* IE or the *Primary CPICH Ec/No* IE and the *Enhanced Primary CPICH Ec/No* IE in the *Multicell E-DCH RL Specific Information* IE measured by the UE are included for a RL in the RADIO LINK RECONFIGURATION PREPARE message, the DRNS shall use this in the calculation of the Initial DL TX Power for this additional RL. If the *Primary CPICH Ec/No* IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLs.]

**[FDD – Additional E-DCH RL Modification:]**

[FDD – If the *Additional E-DCH RL Specific Information To Modify* IE is present in the *Additional E-DCH Configuration Change Information* IE, then the RL indicated by the *E-DCH Additional RL ID* IE indicates the RL on which E-DCH resources shall be modified:]

- [FDD – If the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE, the *E-HICH Power Offset* IE, and/or the *E-DCH DL Control Channel Grant* IE in the *Multicell E-DCH RL Specific Information* IE is included, the DRNS shall use the information in the same way as for the information used on the Primary uplink frequency.]

- [FDD – If the *DL Reference Power* IEs is included in the *Multicell E-DCH RL Specific Information* IE and power balancing is active, DRNS shall apply DL power Control in the same way as defined for the Primary uplink frequency.]

- [FDD – If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the DRNS, the DRNS shall include the *DL Power Balancing Updated Indicator* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE for each affected RL in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the *Phase Reference Update Indicator* IE is included in the *Multicell E-DCH RL Specific Information* IE, DRNS shall modify the channel estimation information according to [10] subclause 4.3.2.1 and set the value(s) in *Primary CPICH Usage For Channel Estimation* IE and/or *Secondary CPICH Information Change* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message accordingly.]

- [FDD – If the RADIO LINK RECONFIGURATION READY message includes the *Primary CPICH Usage For Channel Estimation* IE and/or the *Secondary CPICH Information Change* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE, the DRNS shall avoid the new configuration in which neither the Primary CPICH nor the Secondary CPICH is used as a Phase Reference for this Radio Link.]

**[FDD – Additional E-DCH Modification:]**

[FDD – If the *Additional E-DCH FDD Information To Modify* IE is present in the *Additional E-DCH Configuration Change Information* IE, then:]

- [FDD – If the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the *E-DCH Minimum Set E-TFC*I IE and/or the *E-DCH Maximum Bitrate* IE is included, the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the *E-DCH Processing Overload Level* IE is included, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD – If the DL TX power upper or lower limit has been re-configured for the secondary UL frequency, the DRNS shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s), and the DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE for each Radio Link when these values are changed.]

- [FDD – If the Additional E-DCH serving RL is in this DRNS, the DRNS may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission. In this case the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional Modified E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

**[FDD – Additional E-DCH Removal]**

[FDD – If the *Additional E-DCH Cell Information RL Reconf Prep* IE is present in the RADIO LINK RECONFIGURATION PREPARE message and the choice of *Setup, Configuration Change or Removal of E-DCH On Secondary UL Frequency* is “Removal”, then the additional E-DCH on the secondary uplink frequency shall be removed.]

**[1.28Mcps TDD – Uplink Synchronisation Parameters LCR:]**

[1.28Mcps TDD –If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

**[1.28Mcps TDD – Shared physical channels Synchronisation Detection:]**

[1.28Mcps TDD – If HS-PDSCH and E-PUCH are configured but no DPCH is configured for the UE, then the DRNS shall include the *Out-of-sync Detection Window* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

**[1.28Mcps TDD – Uplink Timing Advance Control LCR:]**

[1.28Mcps TDD – The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK RECONFIGURATION READY message, if the Uplink Timing Advance Control parameters have been changed.]

**[1.28Mcps TDD – PowerControl GAP:]**

[1.28Mcps TDD – If applied in the DRNS, the DRNC may include the *PowerControl GAP* IE in the RADIO LINK RECONFIGURATION READY message.]

**[1.28Mcps TDD – E-UTRAN Inter-RAT measurement:]**

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Need for Idle Interval* IE set to "TRUE", if supported, the DRNC shall include the *Idle Interval Information* IE in the RADIO LINK RECONFIGURATION READY message. If the *Need for Idle Interval* IE is set to "FALSE", the DRNC shall delete the configuration related to E-UTRAN Inter-RAT measurement ]

**[1.28Mcps TDD – RNTI Allocation Indicator:]**

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *RNTI Allocation Indicator* IE, if supported, the DRNS may allocate an E-RNTI and/or an H-RNTI for UE to use in CELL_FACH state.]

**[1.28Mcps TDD – Inter-frequency/ Inter-RAT measurement:]**

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *DCH Measurement Type indicator* IE, if supported, the DRNS shall include the *Measurement purpose* IE and the *Measurement occasion pattern sequence parameters* IE in the *DCH Measurement Occasion Information* IE in the RADIO LINK RECONFIGURATION READY message to configure the measurement occasion pattern(s) indicated by the *DCH Measurement Type indicator* IE.]

**[TDD – DSCH RNTI Addition/Deletion:]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH RL ID* IE, then the DRNS shall use it as the new RL identifier for PDSCH and PUSCH.]

- [TDD – If the indicated PDSCH RL ID is in the DRNS and there was no DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD – If the indicated PDSCH RL ID is in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new DSCH-RNTI to the UE Context, release the old DSCH-RNTI and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD – If the indicated PDSCH RL ID is not in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall release this DSCH-RNTI.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes a *DSCHs To Delete* IE and/or a *USCHs To Delete* IE which results in the deletion of all DSCH and USCH resources for the UE Context, then the DRNC shall release the DSCH-RNTI allocated to the UE Context, if there was one.]

**[FDD – Phase Reference Handling:]**

[FDD – If Primary CPICH usage for channel estimation information has been reconfigured, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If Secondary CPICH information for channel estimation has been reconfigured, the DRNC shall include the *Secondary CPICH Information Change* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes *Phase Reference Update Indicator* IE, DRNC shall modify the channel estimation information according to [10] subclause 4.3.2.1 and set the value(s) in

*Primary CPICH Usage For Channel Estimation* IE and/or *Secondary CPICH Information Change* IE in the RADIO LINK RECONFIGURATION READY message accordingly.]

[FDD – If the RADIO LINK RECONFIGURATION READY message includes the *Primary CPICH Usage For Channel Estimation* IE and/or the *Secondary CPICH Information Change* IE, the DRNC shall avoid the new configuration in which neither the Primary CPICH nor the Secondary CPICH is used as a Phase Reference for this Radio Link.]

**[FDD – Fast Reconfiguration:]**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Fast Reconfiguration Mode* IE, the DRNS shall, if supported, and if it is possible to base the synchronization of the reconfiguration on the detection of the change in the uplink scrambling code for this reconfiguration, include the *Fast ReconfigurationPermission* IE in the RADIO LINK RECONFIGURATION READY message.]

**[TDD – Intra- DRNS Serving E-DCH Radio Link Change:]**

TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [TDD – In the new configuration the DRNS shall de-allocate the E-DCH resources of the old Serving E-DCH Radio Link and allocate the E-DCH resources for the new Serving E-DCH Radio Link.]

- [3.84Mcps TDD – The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE in the *E-DCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28Mcps TDD – The DRNS shall allocate E-AGCH parameters and E-HICH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE and the *E-HICH Specific Information Response* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

- [7.68Mcps TDD – The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response 7.68Mcps* IE in the *E-DCH TDD Information Response 7.68Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD – If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

**[TDD – E-PUCH Handling:]**

[3.84Mcps TDD and 7.68Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-PUCH Information* IE, the DRNS shall apply the parameters to the new configuration.]

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-PUCH Information LCR* IE, the DRNS shall apply the parameters to the new configuration]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *E- TFCS Information* IE, the DRNS shall apply the beta parameters to the new configuration.]

**[3.84Mcps TDD – E-DCH Setup:]**

[3.84Mcps TDD – the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information* IE.]

**[1.28Mcps TDD – E-DCH Setup:]**

[1.28cps TDD – the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH informationelements: *E-DCH Serving RL* IE, *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information LCR* IE.]

**[7.68Mcps TDD – E-DCH Setup:]**

[7.68Mcps TDD – the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information 7.68Mcps* IE.]

**[TDD- E-DCH MAC-d Flow Addition/Deletion:]**

[TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information TDD* IE in the *E-DCH MAC-d Flows To Add* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel.]

[TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the UE Context, then the DRNS shall delete the E-DCH configuration from the UE Context and release the E-DCH resources.]

[TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [1.28Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Maximum Bit Rate LC*R IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

**[3.84Mcps TDD – E-DCH Non-scheduled allocations:]**

[3.84Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information TDD* IE in the *E-DCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

**[1.28Mcps TDD – E-DCH Non-scheduled allocations:]**

[1.28Mcps – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information LCR TDD* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

**[7.68Mcps TDD – E-DCH Non-scheduled allocations:]**

[7.68Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information* 7.68Mcps *TDD* IE in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

**[TDD – E-DCH Modification:]**

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH TDD Information To Modify* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d PDU Size Format* IE in the *E-DCH TDD Information To Modify* IE, then the DRNS shall use the indicated format in user plane frame structure for E-DCH channels [32] and MAC [41].]

**[3.84Mcps TDD – E-DCH Modification:]**

[3.84Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information* IE, then:]

- [3.84Mcps TDD – If the *E-DCH TDD Information* IE includes the *E-DCH TDD Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD – If the *E-DCH TDD Information* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [3.84Mcps TDD – If the *E-DCH TDD Information* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

**[1.28Mcps TDD – E-DCH Modification:]**

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information LCR* IE, then:]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *E-DCH Processing Overload Level* IE for an E-DCH, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE, then the DRNS shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

**[7.68Mcps TDD – E-DCH Modification:]**

[7.68Mcps TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information 7.68Mcps* IE, then:]

- [7.68Mcps TDD – If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD – If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [7.68Mcps TDD – If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

[TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information To Modify* IE, then:]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

  [TDD- If the *E-DCH TDD Information To Modify* IE contains a *TNL QoS* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the DRNS shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [1.28Mcps TDD – If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Retransmission Timer* IE for an E-DCH MAC-d flow then the DRNS shall use this information to set the retransmission timer.]

- [TDD– If the *TNL QoS* IE is included in the *E-DCH TDD Information to Modify* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH HARQ Power Offset TDD* IE for an E-DCH MAC-d flow the DRNS shall use this new power offset value.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains the *E-DCH Grant Type* IE, the DRNS shall treat the E-DCH MAC-d flow as Scheduled or Non-scheduled accordingly.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the DRNS shall use this information to add/delete the indicated logical channels. When a logical channel is deleted, all its associated configuration data shall also removed.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Modify* IE, the DRNS shall use this information to modify the indicated logical channels:]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the DRNS shall apply the values in the new configuration.]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the DRNS shall apply the values in the new configuration.]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the DRNS shall apply the values in the new configuration.]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes E-*DCH DDI Value* IE, the DRNS shall apply the values in the new configuration.]

  - [1.28Mcps TDD – If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Maximum Bit Rate LC*R IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes the *Maximum MAC-d PDU Size Extended* IE, the DRNS shall apply the value in the new configuration.]

- [TDD– If the *E-DCH TDD Information To Modify* IE includes the *MAC-e Reset Indicator* IE, then the DRNS shall use this value to determine whether MAC-e (or MAC-i) Reset is performed in the UE for sending the HARQ Failure Indication.]

**General**

If the requested modifications are allowed by the DRNC and the DRNC has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address* IE and *Binding ID* IE in the [TDD – *DSCHs To Modify* IE, *DSCHs To Add* IE, *USCHs To Modify* IE, *USCHs To Add* IE], *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, [FDD – *RL Specific E-DCH Information* IE,] [TDD –*E-DCH MAC-d Flows to Add* IE,] [TDD – *E-DCH TDD Information to Modify* IE,] or in the *RL Specific DCH Information* IEs, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel [FDD – for which the *Transport Bearer Not Requested Indicator* IE is not included], HS-DSCH MAC-d flow being added or E-DCH MAC-d flow [FDD – for

which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel, HS-DSCH MAC-d flow or E-DCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel [FDD – for which the *Transport Bearer Not Requested Indicator* IE is not included], HS-DSCH MAC-d flow being added or E-DCH MAC-d flow [FDD – for which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel [FDD – for which the *Transport Bearer Not Requested Indicator* IE was not included], HS-DSCH MAC-d flow or E-DCH MAC-d flow [FDD – for which the *Transport Bearer Not Requested Indicator* IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included [FDD – if the *Transport Bearer Not Requested Indicator* IE is not included for the corresponding DCH,] for only one of the DCHs in the set of co-ordinated DCHs.

[FDD – If the RADIO LINK RECONDIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer Shall not be Established" for a DCH or an E-DCH MAC-d flow, then the DRNC shall not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If the RADIO LINK RECONDIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH or an E-DCH MAC-d flow and:]

- [FDD – if the DRNC establishes a transport bearer for the concerned DCH or E-DCH MAC-d flow, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH or E-DCH MAC-d flow being established.]

- [FDD – if the DRNC does not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION READY message.]

In the case of a Radio Link being combined with another Radio Link within the DRNS, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included for only one of the combined Radio Links [FDD – if the *Transport Bearer Not Requested Indicator* IE is not included for this DCH of the Radio Link].

[FDD – In the case of an E-DCH RL being combined with another E-DCH RL within the DRNS, the *E-DCH FDD Information Response* IE shall be included only for one of the combined E-DCH RLs.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Additional E-DCH Cell Information RL Reconf Prep* IE, then:]

- [FDD – if the *Multicell E-DCH Transport Bearer Mode* IE for an Additional E-DCH to be Setup is set to "Separate Iur Transport Bearer Mode" the DRNS shall use this mode in the new configuration and apply separate transport bearers for the MAC-d flows.]

- [FDD – if the *Multicell E-DCH Transport Bearer Mode* IE for an Additional E-DCH to be Setup is set to "UL Flow Multiplexing Mode" the DRNS shall use this mode in the new configuration and multiplex MAC-d flows on the transport bearers.]

- [FDD – if Separate Iur Transport Bearer Mode is used in the new configuration, then:]

  - [FDD – the DRNS shall follow the rules defined in this procedure for single carrier mode of operation for establishment of the transport bearer for a MAC-d flow, use the *Transport Bearer Not Requested Indicator* IE in the *RL Specific E-DCH Information* IE in the *RL Information* IE and/or the *Transport Bearer Request Indicator* IE in the *E-DCH FDD Information To Modify* IE received for the corresponding Radio Link(s) of the Primary Uplink Frequency to determine the transport bearer configuration in the new configuration for the radio links of the Secondary Uplink Frequency.]

  - [FDD – If the *Transport Layer Address* IE and *Binding ID* IE is included for an E-DCH MAC-d flow in the *Additional E-DCH MAC-d Flows Specific Information* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE or in the *Additional E-DCH RL Specific Information To Add* IE and/or the *Additional E-DCH RL Specific Information To Modify* IE in the *Additional E-DCH Configuration Change Information* IE in the *Additional E-DCH Cell Information Configuration Change* IE, then the DRNS may use the transport layer

address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow. If the DRNS establishes a transport bearer for the concerned E-DCH MAC-d flow the DRNS shall, for establishment of the transport bearer, include in the RADIO LINK RECONFIGURATION READY message in the *Additional E-DCH Cell Information Response RLReconf* IE the *Binding ID* IE and *Transport Layer Address* IE in the *Additional E-DCH MAC-d Flow Specific Information Response* IE in the *Additional E-DCH FDD Information Response* IE for new E-DCH radio links on the Secondary UL frequency and/or include the *Binding ID* IE and *Transport Layer Address* IE in the *Additional E-DCH MAC-d Flow Specific Information Response* IE in the *Additional Modified E-DCH FDD Information Response* IE for radio links on the Secondary UL frequency that has been modified.]

Any allowed rate for the uplink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

Any allowed rate for the downlink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s) and the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link when these values are changed.

[FDD – If the DL TX power upper or lower limit has been re-configured, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE respectively. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH or on the F-DPCH of the RL –except, if the UE Context is configured to use DPCH in the downlink, during compressed mode, when the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[3.84 Mcps TDD and 7.68 Mcps TDD – If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION READY message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the new value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/*CCTrCH Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/*CCTrCH Minimum DL TX Power* IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD – If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION READY message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the new value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[TDD – If the [3.84Mcps TDD and 7.68 Mcps TDD – *DL Time Slot ISCP Info* IE][1.28Mcps TDD – *DL Time Slot ISCP Info LCR* IE] is present, the DRNS should use the indicated values when deciding the Initial DL TX Power.]

[TDD – If the *Primary CCPCH RSCP Delta* IE is included, the DRNS shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS shall assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS shall use the indicated values when deciding the Initial DL TX Power.]

### 8.3.4.3 Unsuccessful Operation

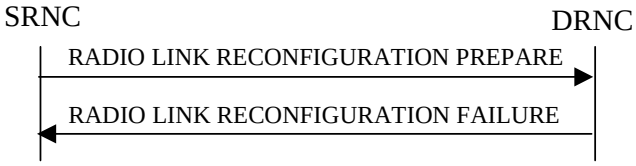



**Figure 11: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation**

If the DRNS cannot reserve the necessary resources for all the new DCHs of a set of co-ordinated DCHs requested to be added, it shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs, the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure for each failed radio link in a *Cause* IE.

[FDD – If the *MIMO Activation Indicator* IE is included and the *Power Offset For S-CPICH for MIMO Request Indicator* IE is not included in the HS-DSCH FDD Information IE in the *HS-DSCH FDD Information* IE in the RADIO LINK RECONFIGURATION PREPARE message or MIMO is activated and the power offset for S-CPICH for MIMO Request indicator has not been configured in the new configuration but MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, the setup of the serving HS-DSCH Radio Link, and/or activation of MIMO, shall be reported as failed and the DRNC shall include in the RADIO LINK RECONFIGURATION FAILURE message the *Cause* IE.]

Typical cause values are:

**Radio Network Layer Causes:**

UL Scrambling Code Already in Use;
DL Radio Resources not Available;
UL Radio Resources not Available;
Requested Configuration not Supported;
Number of DL Codes not Supported;
Number of UL Codes not Supported;
Dedicated Transport Channel Type not Supported;
DL Shared Channel Type not Supported;
[TDD – UL Shared Channel Type not Supported;]
[FDD – UL Spreading Factor not Supported;]
[FDD – DL Spreading Factor not Supported;]
CM not Supported;
RL Timing Adjustment not Supported;
E-DCH not supported;
[FDD – F-DPCH not supported;]
[FDD – Continuous Packet Connectivity DTX-DRX operation not Supported;]
[FDD – Continuous Packet Connectivity HS-SCCH less operation not Supported;]
[FDD – MIMO not supported;]
[FDD – E-DCH TTI2ms not supported;]
[FDD – Continuous Packet Connectivity DTX-DRX operation not available;]
[FDD – Continuous Packet Connectivity UE DTX Cycle not available;]
[FDD – MIMO not available;]
[FDD – SixteenQAM UL not Supported;]
HS-DSCH MAC-d PDU Size Format not supported;
[FDD – F-DPCH Slot Format operation not supported;]
E-DCH MAC-d PDU Size Format not available;
[FDD – E-DPCCH Power Boosting not supported;]
[FDD – SixtyfourQAM DL and MIMO Combined not available;]
[FDD – Multi Cell operation not available;]
[FDD – Multi Cell operation not supported;]
[FDD – SixtyfourQAM DL and MIMO Combined not supported;]
[1.28Mcps TDD- MIMO not supported;]
[1.28Mcps TDD – MIMO not available;]

[1.28Mcps TDD – SixtyfourQAM DL and MIMO Combined not available;]
[FDD – TX diversity for MIMO UE on DL Control Channels not available;]
[FDD – Single Stream MIMO not supported;]
[FDD – Single Stream MIMO not available;]
[FDD – Multi Cell operation with MIMO not available;]
[FDD – Multi Cell operation with MIMO not supported;]
[FDD – Multi Cell E-DCH Operation not supported;]
[FDD – Multi Cell E-DCH Operation not available;]
[FDD – Multi Cell operation with Single Stream MIMO not available;]
[FDD – Multi Cell operation with Single Stream MIMO not supported;]
[FDD – Cell Specific Tx Diversity Handling For Multi Cell Operation Not Available;]
[FDD – Cell Specific Tx Diversity Handling For Multi Cell Operation Not Supported.]

**Miscellaneous Causes:**

Control Processing Overload;
Not enough User Plane Processing Resources.

### 8.3.4.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the *RL Information* IE includes the *DL Reference Power* IE, but the power balancing is not active in the indicated RL(s), the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD – If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the RADIO LINK RECONFIGURATION PREPARE message includes more than one *DL Reference Power* IE, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be established, the DRNC shall reject the Synchronised Radio Link Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE deleting the last remaining Priority Queue of an HS-DSCH MAC-d Flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Indexed MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use Maximum MAC-d PDU Size Extended, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Flexible MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use MAC-d PDU Size Index, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Fixed MAC-d PDU Size" for an E-DCH and there exist a Logical Channel of the MAC-d flows of the E-DCH that is configured to use Maximum MAC-d PDU Size Extended, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Flexible MAC-d PDU Size" for an E-DCH and there exist a Logical Channel of the MAC-d flows of the E-DCH that is configured to use *MAC-d PDU Size List*, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the concerned UE Context is configured to use DPCH in the downlink in the old configuration and if the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to use F-DPCH in the downlink in the old configuration and the RADIO LINK RECONFIGURATION PREPARE message includes at least one but not all of the *TFCS* IE, *DL DPCH Slot Format* IE, *TFCI Signalling Mode* IE, *Multiplexing Position* IE, *Limited Power Increase* IE and *DL DPCH Power Information* IE in the *DL DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, but the *E-DPCH Information* IE is not present or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE, *E-TTI* IE, *E-DPCCH Power Offset* IE, *E-RGCH 2-Index-Step Threshold* IE, *E-RGCH 3-Index-Step Threshold* IE, *HARQ Info for E-DCH* IE or *HS-DSCH Configured Indicator* IE are not present in the *E-DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the UE Context is not configured for E-DCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID* IE and/or the *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the new configuration but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the UE Context is not configured for E-DCH, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION PREPARE message and the *UL Scrambling Code* IE does not indicate an uplink scrambling code different from the currently used uplink scrambling code the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE in addition to the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE in addition to the *Continuous Packet Connectivity HS-SCCH less Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message. ]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE while the Continuous Packet Connectivity HS-SCCH less configuration isn't configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity *DTX-DRX* configuration isn't configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *DRX Information To Modify* IE in *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity DRX configuration is not configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only" but no *Transport Format Set* IE for the uplink for this DCH and the DRNC had ignored the configuration of Transport Format Set for uplink, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only" but no *Transport Format Set* IE for the downlink for this DCH and the DRNC had ignored the configuration of Transport Format Set for downlink, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d flow but does not contain the corresponding *DCH ID* IE and the *Unidirectional DCH indicator* IE set to "Uplink DCH only" for the DCH in *DCH Information To Add* IE or does not contain the corresponding *E-DCH MAC-d Flow ID* IE in *E-DCH MAC-d Flows Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to apply UL DPCCH Slot Format 4 but is not configured to use F-DPCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to apply UL DPCCH Slot Format 0 or 2 and execute Continuous Packet Connectivity DTX-DRX operation, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to apply the "Closed loop mode 1" and if the concerned UE Context is not configured to apply UL DPCCH Slot Format 2 or 3, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to apply MIMO, allowed to apply 64QAM, establish the secondary serving HS-DSCH Radio Link or apply Single Stream MIMO in the new configuration but is not configured to use flexible MAC-d PDU Size, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE for a DCH in the *RL Specific DCH Information* IE but does not include the *DCH ID* IE for the DCH in the *DCHs to Add* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE for an E-DCH MAC-d flow in the *RL Specific E-DCH Information* IE but does not include the *E-DCH MAC-d flow ID* IE for the E-DCH MAC-d flow in the *E-DCH MAC-d flows Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but does not contain the *F-DPCH Information* IE and the concerned UE Context is not previously configured to use F-DPCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message]

[FDD – If the concerned UE Context is configured to have the Serving E-DCH Radio Link but there is at least one E-DCH MAC-d flow which the transport bearer is not configured for the Serving E-DCH Radio Link in DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d Flow for a specific RL and the specific RL is combined with existing RL which the transport bearer is established for the DCH or the E-DCH MAC-d Flow in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Additional HS Cell Information RL Reconf Prep* IE indicating a new seconadry serving cell that is not in the same Node B as the serving HS-DSCH cell (or new serving in case of simultaneous serving HS-DSCH cell change), then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message]

If ALCAP is not used, if the concerned UE Context is configured to establish a DCH, an E-DCH MAC-d flow and/or an HS-DSCH MAC-d flow but the RADIO LINK RECONFIGURATION PREPARE message does not include the *Transport Layer Address* IE and the *Binding ID* IE for the DCH, the E-DCH MAC-d flow and/or the HS-DSCH MAC-d flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[TDD – If ALCAP is not used, if the concerned UE Context is configured to establish a DSCH and/or a USCH but the RADIO LINK RECONFIGURATION PREPARE message does not include the *Transport Layer Address* IE and the

*Binding ID* IE for the DSCH and/or the USCH, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If, in the new configuration, there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use "Flexible RLC PDU Size" for an HS-DSCH but is not configured to use Maximum MAC-d PDU Size Extended, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use MAC-d PDU Size Index for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use "Flexible RLC PDU Size", the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains a *MIMO Activation Indicator* IE and a *Single Stream MIMO Activation Indicator* IE in the *HS-DSCH FDD Information* IE or in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Reconf Prep* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to apply MIMO and Single Stream MIMO for the HS-DSCH Radio Link or the Secondary Serving Radio link, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Additional E-DCH Cell Information RL Reconf Prep* IE and if the *E-DPCH Information* IE is not present or the E-DPCH Information was not configured in the UE Context, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Additional E-DCH Cell Information RL Reconf Prep* IE and there exist a logical channel for which the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE is not present, the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE in the *Additional E-DCH Cell Information RL Reconf Prep* IE and the *C-ID* IE is not included but the RL indicated by the *E-DCH Additional RL ID* IE is not configured in the current UE context as a Secondary Serving HS-DSCH radio link without any configured Additional E-DCH, the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Diversity Mode* IE in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Reconf Prep* IE and the secondary serving HS-DSCH is already configured in the UE Context, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the secondary serving HS-DSCH is not configured in the UE Context and if the RADIO LINK RECONFIGURATION PREPARE message contains in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Reconf Prep* IE the *Diversity Mode* IE not set to "None" but not the *Transmit Diversity Indicator* or contains the *Transmit Diversity Indicator* but not the *Diversity Mode* IE not set to "None", then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Diversity Mode* IE in the *Secondary Serving Information To Modify* IE in the *Additional HS Cell Information RL Reconf Prep* IE and the *Non Cell Specific Tx Diversity* IE, the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

## 8.3.5 Synchronised Radio Link Reconfiguration Commit

### 8.3.5.1 General

This procedure is used to order the DRNS to switch to the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

### 8.3.5.2 Successful Operation




**Figure 12: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation**

The DRNS shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure at the "configuration switching point" occurring:

- [TDD – at the next coming CFN with a value equal to the value requested by the SRNC in the *CFN* IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC.]

- [FDD – if the *Fast Reconfiguration* IE is not included in the RADIO LINK RECONFIGURATION COMMIT message at the next coming CFN with a value equal to the value requested by the SRNC in the *CFN* IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC.]

- [FDD – if the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION COMMIT message as soon as the DRNS detects that the UE uses the new configuration in the uplink (e.g. the NodeB indicates that the UE uses the new scrambling code used for the uplink by sending the RADIO LINK RESTORATION message). In order to limit the period for the detection in the DRNS the CFN in the RADIO LINK RECONFIGURATION COMMIT message indicates the earliest possible time instant at which the UE might use the new configuration.]

[FDD – If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the DRNS.]

[FDD – If the *Active Pattern Sequence Information* IE is not included in the RADIO LINK RECONFIGURATION COMMIT message and a new Compressed Mode Configuration exists in the prepared configuration, the DRNS shall behave as if an *Active Pattern Sequence Information* IE with an empty *Transmission Gap Pattern Sequence Status* IE was included.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

In the case of a Transport Channel or MAC-d flow modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the configuration switching point (defined above) indicated CFN.

The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1, and in [32], subclauses 5.3.1 and 5.3.2.

[FDD – If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences at the configuration switching point (defined above). From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

[FDD – If the RADIO LINK RECONFIGURATION COMMIT message includes the *Active Pattern Sequence Information* IE and the concerned UE Context is configured to use F-DPCH in the downlink, the DRNS shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration]

### 8.3.5.3 Abnormal Conditions

If a new transport bearer is required for the new configuration and it is not available at the requested configuration switching point (defined in sub-clause 8.3.3.2), the DRNS shall initiate the Radio Link Failure procedure.

[FDD – If the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION COMMIT message and the DRNC did not include the *Fast ReconfigurationPermission* IE in the RADIO LINK RECONFIGURATION READY message, the DRNC shall initiate the Radio Link Failure procedure.]

## 8.3.6 Synchronised Radio Link Reconfiguration Cancellation

### 8.3.6.1 General

This procedure is used to order the DRNS to release the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

### 8.3.6.2 Successful Operation




**Figure 13: Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation**

Upon receipt of the RADIO LINK RECONFIGURATION CANCEL message from the SRNC, the DRNS shall release the new configuration ([FDD – including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised RL Reconfiguration Preparation procedure and continue using the old configuration. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

### 8.3.6.3 Abnormal Conditions

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## 8.3.7 Unsynchronised Radio Link Reconfiguration

### 8.3.7.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a DRNS.

The procedure is used when there is no need to synchronise the time of the switching from the old to the new radio link configuration in the cells used by the UE-UTRAN connection within the DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.7.2 Successful Operation

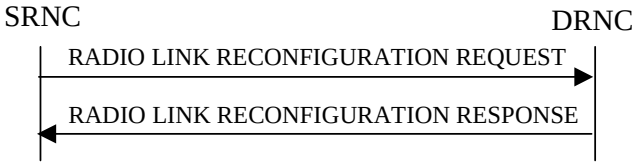



**Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation**

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the DRNC.

Upon receipt, the DRNS shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL to be modified according to Annex A.

If the *UE Aggregate Maximum Bit Rate* IE is contained in the RADIO LINK RECONFIGURATION REQUEST message, the DRNS shall, if supported, store the received UE Aggregate Maximum Bit Rate parameters to control the aggregate data rate of non GBR traffic for this UE.

**DCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Modify* IEs, then the DRNS shall treat them as follows:

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Frame Handling Priority* IE, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.

- If the *DCH Specific Info* IE includes the *Traffic Class* IE, the DRNC may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this DCH indicates the value “RRC”.

- [FDD – If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]

- [FDD – If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the DRNS may use this information to determine the transport bearer characteristics to apply for the uplink for the related DCH or set of co-ordinated DCHs.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- [TDD – If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH in the new configuration.]

- [TDD – If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH in the new configuration.]

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

**DCH Addition:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Add* IEs, then the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.

- If the *DCHs To Add* IE includes multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if all of them can be in the new configuration.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

- [FDD – For each DCH which does not belong to a set of co-ordinated DCHs, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]

- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD – If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD – If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]

- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.

- The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value "RRC".

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the DRNS may use this information to determine the transport bearer characteristics to apply for the uplink for the related DCH or set of co-ordinated DCHs.

- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

    - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

    - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

**DCH Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Delete* IEs, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

**[FDD – Physical Channel Modification:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows: ]

- [FDD – If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the DRNS shall apply the new TFCS in the Uplink of the new configuration.]

- [FDD – If the *UL DPCH Information* IE includes the *UL DPDCH Indicator For E-DCH Operation* IE set to "UL DPDCH not present", the UL DPDCH resources shall be removed from the configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD – If the *DL DPCH Information* IE includes the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE for the DL, the DRNS shall apply the new TFCI Signalling Mode in the Downlink of the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to "Not Used", the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, and if the *Downlink Compressed Mode Method* in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to "SF/2", the DRNC shall include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message, without changing any of the DL Channelisation Codes or DL Scrambling Codes, indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *E-TFCS Information* IE, the DRNS shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI Validity Indicator* IE the DRNS shall ignore the value in *E-DCH Minimum Set E-TFCI* IE. If the *E-DCH Minimum Set E-TFCI validity indicator* IE is absent DRNS shall use the value for the related resource allocation operation.]

[FDD – If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the DRNS shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the DRNS shall use the E-DPDCH power extrapolation formula defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION REQUEST message.]

FDD – If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the DRNS shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the DRNS shall use the value "127" in the algorithm defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION REQUEST message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-DPCCH Power Offset* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 2-Index-Step* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 3-Index-Step* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *HARQ Info for E-DCH* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *Minimum Reduced E-DPDCH Gain Factor* IE, then the DRNS shall use the value to determine the applicable minimum gain factor ($\beta_{ed,k,reduced,min}$) defined in [10]. For the case the *Minimum Reduced E-DPDCH Gain Factor* IE is not available for the UE Context, the DRNS may use the default value defined in [16]. ]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context for Continuous Packet Connectiviy DTX operation according to [10].]
- [FDD – If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNS shall configure the concerned UE Context for Continuous Packet Connectiviy DRX operation according to [10].]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then:]

- [FDD – If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]
- [FDD – If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this value to determine the beginning of uplink transmission in the new configuration according to [10] .]
- [FDD – If the *DTX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this information to modify the indicated DTX Information parameter in the new configuration. If the choice of *DTX Information To Modify* IE is "Deactivate", then DRX should be deactived together with DTX.]
- [FDD – If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this information to modify the indicated DRX Information in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectiviy HS-SCCH less operation according to [10].]
- [FDD – The DRNS shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD – If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the DRNC shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE, then the DRNS shall deactive the Continuous Packet Connectivity HS-SCCH less operation for the HS-DSCH Radio Link.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DRX Information LCR* IE, then the DRNS shall take account into these parameters to decide the DRX operation related parameters and configure the concerned UE Context for DRX operation according to [21] and include the parameter(s) in the *Continuous Packet Connectivity DRX Information Response LCR* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DRX Information To Modify LCR* IE, then:]

- [1.28 Mcps TDD – If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DRX Information To Modify LCR* IE, then the DRNS shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]

- [1.28 Mcps TDD – If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DRX Information To Modify LCR* IE, then the DRNS shall use this value to determine the beginning of uplink transmission in the new configuration according to [21].]

- [1.28 Mcps TDD – If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DRX Information To Modify LCR* IE, then the DRNS shall use this information to modify the indicated DRX Information in the new configuration.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then:]

- [1.28 Mcps TDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for HS-DSCH Semi-Persistent scheduling operation according to [21].]

- [1.28 Mcps TDD – The DRNS shall allocate the HS-SICH information needed for HS-DSCH Semi-Persistent scheduling operation and include the *HS-DSCH Semi-Persistent scheduling Information Response LCR* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent Resource Reservation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall include *Allcoated HS-PDSCH Semi-persistent resource IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Semi-Persistent scheduling Information LCR* IE, then:]

- [1.28 Mcps TDD – The DRNS shall configure the Serving E-DCH Radio Link indicated by the *E-DCH Serving RL* IE for E-DCH Semi-Persistent scheduling operation according to [21].]

- [1.28 Mcps TDD - If the *E-DCH Semi-Persistent Resource Reservation Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information LCR* IE, then the DRNS shall include *Allocated E-DCH Semi-persistent resource* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Semi-Persistent scheduling Information to modify LCR* IE, then:]

- [1.28 Mcps TDD – If the *Transport Block Size List* IE or/and *Repetition Period list* IE is/are included in the *HS-DSCH Semi-Persistent scheduling Information to modify LCR* IE, the DRNS shall modifiy the configuration of Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for HS-DSCH Semi-Persistent scheduling operation according to [21].

- [1.28 Mcps TDD – The DRNS shall allocate the HS-SICH information needed for HS-DSCH Semi-Persistent scheduling operation and include the *HS-DSCH Semi-Persistent scheduling Information Response LCR* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent Resource Reservation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information to modify LCR* IE, then the DRNS shall include *Allcoated HS-PDSCH Semi-persistent resource* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28 Mcps TDD – If the *HS-DSCH Semi-Persistent scheduling operation Indicator* IE is included in the *HS-DSCH Semi-Persistent scheduling Information to modify LCR* IE, then the DRNS shall apply this information for HS-DSCH Semi-Persistent scheduling operation.]

- [1.28 Mcps TDD – If the buffer size for HS-DSCH Semi-Persistent scheduling needs to be modified, then the DRNS shall include the *Buffer Size for HS-DSCH Semi-Persistent scheduling* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28 Mcps TDD – If the number of processes for HS-DSCH Semi-Persistent scheduling needs to be modified, then the DRNS shall include the *Number of Processes for HS-DSCH Semi-Persistent scheduling* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION RQUEST message includes the *E-DCH Semi-Persistent scheduling Information to modify LCR* IE, then:]

- [1.28 Mcps TDD – If the *Repetition Period list* IE is included in the *E-DCH Semi-Persistent scheduling Information to modify LCR* IE, the DRNS shall modifiy the configuration of Serving HS-DSCH Radio Link indicated by the *E-DCH Serving RL* IE for E-DCH Semi-Persistent scheduling operation according to [21].

- [1.28 Mcps TDD – If the *E-DCH Semi-Persistent scheduling Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information to modify LCR* IE, then the DRNS shall apply this information for E-DCH Semi-Persistent scheduling operation.]

- [1.28 Mcps TDD - If the *E-DCH Semi-Persistent Resource Reservation Indicator* IE is included in the *E-DCH Semi-Persistent scheduling Information to modify LCR* IE, then the DRNS shall include *Allocated E-DCH Semi-persistent resource* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Semi-Persistent scheduling Deactivate Indicator LCR* IE, then the DRNS shall deactivate the HS-DSCH Semi-Persistent scheduling operation for the HS-DSCH Radio Link.]

[1.28 Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Semi-Persistent scheduling Deactivate Indicator LCR* IE, then the DRNS shall deactivate the E-DCH Semi-Persistent scheduling operation for the E-DCH Radio Link.]

**[TDD – UL/DL CCTrCH Modification]**

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Modify* IEs or *DL CCTrCH Information To Modify* IEs which contain a *TFCS* IE, the DRNS shall apply the included *TFCS* IE as the new value(s) to the referenced CCTrCH. Otherwise the DRNS shall continue to apply the previous value(s) specified for this CCTrCH.]

[1.28Mcps TDD – If the *UL CCTrCH To Modify* IE includes *UL SIR Target* IE, the DRNS shall apply this value as the new configuration and use it for the UL inner loop power control according [12] and [22].]

**[TDD – UL/DL CCTrCH Deletion]**

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Delete* IEs or *DL CCTrCH Information To Delete* IEs, the DRNS shall not include the referenced CCTrCH in the new configuration.]

**DL Power Control:**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE and the power balancing is active, the DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported, using the *DL Reference Power Information* IE in the RADIO LINK RECONFIGURATION REQUEST message. The updated reference power shall be used from the next adjustment period.]

[FDD – If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[1.28Mcps TDD – Uplink Synchronisation Parameters LCR:]**

[1.28Mcps TDD – If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

**[1.28Mcps TDD – Shared physical channels Synchronisation Detection:]**

[1.28Mcps TDD – If HS-PDSCH and E-PUCH are configured but no DPCH is configured for the UE, then the DRNS shall include the *Out-of-sync Detection Window* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[1.28Mcps TDD – Uplink Timing Advance Control LCR:]**

[1.28Mcps TDD – The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK RECONFIGURATION RESPONSE message, if the Uplink Timing Advance Control parameters have been changed.]

**[1.28Mcps TDD – PowerControl GAP:]**

[1.28Mcps TDD – If applied in the DRNS, the DRNC may include the *PowerControl GAP* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[1.28Mcps TDD – E-UTRAN Inter-RAT measurement:]**

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Need for Idle Interval* IE set to "TRUE", if supported, the DRNC shall include the *Idle Interval Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *Need for Idle Interval* IE is set to "FALSE", the DRNC shall delete the configuration related to E-UTRAN Inter-RAT measurement ]

**[1.28Mcps TDD – Inter-frequency/ Inter-RAT measurement:]**

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION REQUESTmessage includes the *DCH Measurement Type indicator* IE, if supported, the DRNS shall include the *Measurement purpose* IE and the *Measurement occasion pattern sequence parameters* IE in the *DCH Measurement Occasion Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message to configure the measurement occasion pattern(s) indicated by the *DCH Measurement Type indicator* IE.]

**[1.28Mcps TDD – RNTI Allocation Indicator:]**

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *RNTI Allocation Indicator* IE, if supported, the DRNS may allocate an E-RNTI and/or an H-RNTI for UE to use in CELL_FACH state.]

**RL Information:**

[FDD. If the UE Context is configured for F-DPCH Slot Format operation, the DRNS shall include the *F-DPCH Slot Format* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**HS-DSCH Setup:**

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message. [FDD – The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.] [1.28Mcps TDD– The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK RECONFIGURATION REQUESTmessage includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer I in RADIO LINK RECONFIGURATION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD – The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD – *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then]

  - [FDD – The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

- [FDD – The DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

- [1.28 Mcps TDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH TDD Information* IE, then]

  - [1.28 Mcps TDD – The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

  - [1.28 Mcps TDD – The DRNS shall decide the SF mode for HS-PDSCH dual stream and include the *MIMO SF Mode for HS-PDSCH dual stream* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [FDD – If the *UE with enhanced HS-SCCH support indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may use:]

  - [FDD – a different HS-SCCH in consecutive TTIs for this UE]

  - [FDD – HS-SCCH orders for the case of HS-SCCH-less operation to this UE]

- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH FDD Information* IE the DRNS may use the supported HSDPA functions for this UE.]

- [FDD – If secondary serving HS-DSCH is applied also in the new configuration, then any changes related to parameters that are common for both the serving and the secondary serving HS-DSCH should be applied also for the secondary serving HS-DSCH.]

- If the RADIO LINK RECONFIGURATION REQUEST message includes *DL RLC PDU Size Format* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, the *DL RLC PDU Size Format* IE may be used by the DRNS to determine the allocated capacity on user plane as described in [32].

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *Priority Queue Information* IE in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, the DRNS shall, if supported, consider the data of the related HSDPA Priority Queue for UE Aggregate Maximum Bit Rate Enforcement.]

- [FDD – If the *Single Stream MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS shall activate the Single Stream MIMO for the HS-DSCH Radio Link.]

- [1.28 Mcps TDD – If the *UE TS0 Capability LCR* IE is included in the *HS-DSCH TDD Information* IE, then the DRNC may include the *TS0 HS-PDSCH Indication LCR* IE in the RADIO LINK RECONFIGURATION RESPONSE message if HS-PDSCH resources could be allocated on TS0 for the UE.]

**[FDD – Secondary Serving HS-DSCH Setup:]**

[FDD – If the *C-ID* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, then:]

- [FDD – The DRNS shall setup the requested HS-PDSCH resources on the secondary serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE. Non cell specific secondary serving Radio Link and non cell specific secondary serving HS-DSCH parameters take the same values as for the serving HS-DSCH cell.]

- [FDD – The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any secondary serving HS-SCCH transmission to this UE.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the secondary serving HS-DSCH and the DRNC shall include the *HS-SCCH Specific Secondary Serving Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the HS-*DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS shall activate the MIMO mode for the secondary serving HS-DSCH Radio Link and the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *HS-DSCH Secondary Serving Cell Change Information Response* IE in the *Additional HS Cell Change Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *Single Stream MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS shall activate the Single Stream MIMO mode for the secondary serving HS-DSCH Radio Link.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the secondary serving HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the secondary serving HS-DSCH Radio Link.]

- [FDD – If, in the new configuration, the UE context is configured not to use Sixtyfour QAM for the secondary serving HS-DSCH, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [41] for secondary serving HS-DSCH Transport Block Size signalling.]

**Intra-DRNS Serving HS-DSCH Radio Link Change:**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- The DRNS shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- The DRNC may include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message. [FDD – The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.] [1.28Mcps TDD– The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

- If a reset of the MAC-hs is not required the DRNS shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD – The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD – *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD – *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD – *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD – The DRNC shall include the [3.84 Mcps TDD – *HS-PDSCH Timeslot Specific Information* IE] [1.28 Mcps TDD – *HS-PDSCH Timeslot Specific Information LCR* IE] [7.68 Mcps TDD – *HS-PDSCH Timeslot Specific Information 7.68 Mcps* IE]in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- The DRNC may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE and the value is set to "allowed" or if *HS-DSCH Information To Modify Unsynchronized* IE is not included and the UE Context is configured with Sixtyfour QAM allowed for the serving HS-DSCH Radio Link and not used in the current configuration and then if the DRNS decides to use 64 QAM in the new configuration, then it shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [FDD – If the power offset for S-CPICH for MIMO Request indicator and MIMO activation indicator have been configured in the new configuration and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, the DRNC shall include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

**[FDD – Intra-DRNS Secondary Serving HS-DSCH Radio Link Change:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *C-ID* IE in the *Additional HS Cell Information RL Reconf Req* IE and the secondary serving HS-DSCH Radio Link has been configured in the DRNS, the *HS-PDSCH RL ID* IE indicates the new Serving HS-DSCH Radio Link:]

- [FDD – The DRNS shall release the HS-PDSCH resources on the old secondary serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new secondary serving HS-DSCH Radio Link. The DRNS shall remove the old secondary serving HS-PDSCH Radio Link if no E-DCH resources are allocated to the RL. Non cell specific secondary serving Radio Link and non cell specific secondary serving HS-DSCH parameters take the same values as for the serving HS-DSCH cell.]

- [FDD – The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNS shall allocate HS-SCCH codes corresponding to the secondary serving HS-DSCH and the DRNC shall include the *HS-SCCH Specific Secondary Serving Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE and the value is set to "allowed" or if *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE is not included and the UE context is configured with Sixtyfour QAM allowed for the secondary serving HS-DSCH Radio Link and not used in the current configuration and then if the DRNS decides to use 64 QAM for the new secondary serving HS-DSCH Radio Link, then it shall include the *SixtyfourQAM DL Usage Indicator* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If, in the new configuration, the UE context is configured not to use Sixtyfour QAM for the secondary serving HS-DSCH, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [41] for secondary serving HS-DSCH Transport Block Size signalling.]

**[FDD – Additional Serving E-DCH Radio Link Change to an existing additional non serving E-DCH RL:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *C-ID* IE in the *Additional HS Cell Information RL Reconf Req* IE and an additional non serving E-DCH RL exists in the cell indicated by the *C-ID* IE, the *HS-PDSCH RL ID* IE in the *HS Cell Information RL Reconf Req* IE indicates the new Additional Serving E-DCH Radio Link.]

- [FDD – If the old Additional Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Additional Serving E-DCH Radio Link at the activation of the new configuration.]

- [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Additional Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message]

- [FDD – The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the Additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE.]

- [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – The DRNS may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every E-DCH Radio Link on secondary UL frequency in the DRNS. If the DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

**[FDD – Additional Serving E-DCH Radio Link Change to a new RL:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Additional E-DCH RL Specific Information To Add* IE in the *Additional E-DCH Configuration Change Information* IE in the *Additional E-DCH Cell Information RL Reconf Req* IE and the *C-ID* IE in the *Additional HS Cell Information RL Reconf Req* IE and there is no radio links in the cell indicated by the *C-ID* IE for the UE context, the *HS-PDSCH RL ID* IE indicates the new Additional Serving E-DCH Radio Link on secondary UL frequency.]

- [FDD – If the old Additional Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Additional Serving E-DCH Radio Link at the activation of the new configuration.]

- [FDD – In the new configuration the DRNS shall allocate the E-DCH resources for the new additional serving E-DCH Radio Link on the secondary UL frequency. Non cell specific E-DCH parameters shall take the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Additional Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNS may include in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE]

- [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message. ]

**HS-DSCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information To Modify Unsynchronised* IE, then:

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE for each HS-DSCH MAC-d flow being modified for which the establishment of one or several new Priority Queues was requested, if the DRNS allows the SRNC to start the transmission of MAC-d PDUs for the Priority Queue(s) being established before the DRNS has allocated capacity on user plane as described in [32]. If UE context is configured to use “Flexible MAC-d PDU Size”, then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer for the Priority Queue of UE context.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Traffic Class* IE in the *HS-DSCH Information To Modify Unsynchronised* IE for a specific HS-DSCH MAC-d flow, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this specific HS-DSCH MAC-d flow indicates the value "RRC".

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To Modify Unsynchronised* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, then the DRNS shall use the indicated ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD – If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS shall use the indicated power offset in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the DRNS shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *MIMO Mode Indicator To Modify* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then]

    - [FDD – The DRNS shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in the new configuration in accordance with the *MIMO Mode Indicator* IE.]

    - [FDD – If the *MIMO Mode Indicator* IE is set to "Activate", then the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

    - [FDD – If the *MIMO Mode Indicator* IE is set to "Activate" and *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH FDD Information Response* IE. If zero power offset the DRNC may include the *Power Offset For S-CPICH for MIMO* IE.]

- [FDD – The DRNC may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio

Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD – If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [1.28Mcps TDD- If the *MIMO Mode Indicator To Modify* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then]

  - [1.28Mcps TDD- The DRNS shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in the new configuration in accordance with the *MIMO Mode Indicator* IE.]

  - [1.28 Mcps TDD – If the *MIMO Mode Indicator* IE is set to "Activate", then the DRNS shall decide the SF mode for HS-PDSCH dual stream and include the *MIMO SF Mode for HS-PDSCH dual stream* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – Any secondary serving HS-DSCH that was applied in the old configuration shall remain in the new configuration unless it is explicitly removed.]

- [FDD – If secondary serving HS-DSCH is applied also in the new configuration, then any changes related to parameters that are common for both the serving and the secondary serving HS-DSCH should be applied also for the secondary serving HS-DSCH.]

- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE the DRNS may use the supported HSDPA functions for this UE.]

- [FDD – If the *Single Stream MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then the DRNS shall activate/deactivate the Single Stream MIMO for the HS-DSCH Radio Link in accordance with the *Single Stream MIMO Mode Indicator* IE.]

**[FDD – Secondary Serving HS-DSCH Modification:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE in the *Additional HS Cell Information RL Reconf Req* IE, then:]

- [FDD – If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any secondary serving HS-SCCH transmission to this UE.]

- [FDD – If the *MIMO Mode Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE, then the DRNS shall activate/deactivate the MIMO mode for the secondary serving HS-DSCH Radio Link in accordance with the *MIMO Mode Indicator* IE.]

- [FDD – If the *MIMO Mode Indicator* IE is set to "Activate", then the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *Single Stream MIMO Mode Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE, then the Node B shall activate/deactivate the Single Stream MIMO mode for the secondary serving HS-DSCH Radio Link in accordance with the *Single Stream MIMO Mode Indicator* IE.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the secondary serving HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the secondary serving HS-DSCH Radio Link.]

- [FDD – If, in the new configuration, the UE context is configured to use the "Flexible MAC-d PDU Size" format and if Sixtyfour QAM will not be used for the secondaery serving HS-DSCH, then the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the *HS-DSCH FDD Secondary Serving Information Response* IE in the *Additional HS Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [41] for secondary serving HS-DSCH Transport Block Size signalling.]

**[FDD – Secondary Serving HS-DSCH Removal:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Secondary Serving Remove* IE in the *Additional HS Cell Information RL Reconf Req* IE, then the indicated secondary serving HS-DSCH Radio Link shall be removed.]

**HS-DSCH MAC-d Flow Addition/Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION REQUEST message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the UE Context, then the DRNC shall delete the HS-DSCH configuration from the UE Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The DRNS may use the Traffic Class IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If TrCH Source Statistics Descriptor IE is present with the value "RRC" in the HS-DSCH MAC-d Flows Information IE, then the DRNC should ignore the Traffic Class IE.

- If the TNL QoS IE is included for a MAC-d flow and if ALCAP is not used, the TNL QoS IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- The DRNC shall include the HS-DSCH Initial Capacity Allocation IE in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being added, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If the UE context is configured to use the "Flexible MAC-d PDU Size" format for the HS-DSCH, then DRNC shall only set in the HS-DSCH Initial Capacity Allocation IE the values for the peer of Scheduling Priority Indicator IE and Maximum MAC-d PDU Size Extended IE to the values of the corresponding peer I in RADIO LINK RECONFIGURATION REQUEST message in the HS-DSCH MAC-d Flows To Add IE for a Priority Queue including Scheduling Priority Indicator IE and Maximum MAC-d PDU Size Extended IE

- If the RADIO LINK RECONFIGURATION REQUEST message includes the MAC-hs Guaranteed Bit Rate IE in the HS-DSCH MAC-d Flows To Add IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the Maximum MAC-d PDU Size Extended IE for a Priority Queue in the HS-DSCH MAC-d Flows To Add IE, then the DRNC shall ignore the SID IE and MAC-d PDU Size IE in the MAC-d PDU Size Index IE and use Maximum MAC-d PDU Size Extended IE to optimise capacity allocation for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes DL RLC PDU Size Format IE for a Priority Queue in the HS-DSCH MAC-d Flows To Add IE, the DL RLC PDU Size Format IE may be used by the DRNS to determine the allocated capacity on user plane as described in [32].

- [FDD – FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, the

DRNS shall, if supported, consider the data of the related HSDPA Priority Queue for UE Aggregate Maximum Bit Rate Enforcement.]

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

**[FDD – HS-DSCH Preconfiguration for Enhanced HS Serving Cell Change]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Preconfiguration Setup* IE in the *RL Information* IE the DRNS shall, if supported, preconfigure the indicated cells for Enhanced HS Serving Cell Change acoording to [63]:]

- [FDD – The DRNS shall preconfigure sets of HS-SCCH codes on the cells preconfigured for HS-DSCH, primary serving HS-DSCH cell, as well as on the secondary serving HS-DSCH cells. The primary serving HS-DSCH cell is designated through the *C-ID* IE part of the *RL Information* IE in the RADIO LINK RECONFIGURATION REQUEST message. The list of secondary serving HS-DSCH cells is designated by the list of *Secondary C-ID* IEsin the *HS-DSCH Preconfiguration Setup* IE part of the *RL Information* IE in the RADIO LINK RECONFIGURATION REQUEST message.]

- [FDD – The number of HS-SCCH codes to preconfigure for each cell may be optionally specified: ]

  - [FDD – by the *Num Primary HS-SCCH Codes* IE in the *HS-DSCH Preconfiguration Setup* IE, for the primary serving HS-DSCH cell.]

  - [FDD – by the *Num Secondary HS-SCCH Codes* IE in *the Secondary Cells* IE in the *HS-DSCH Preconfiguration Setup* IE for each of the secondary serving HS-DSCH cells.]

- [FDD – If *Num Primary HS-SCCH Codes* IE or *Num Secondary HS-SCCH Codes* IE is not included in the message the number and distribution of codes on primary and any secondary cells shall be preconfigured to satisfy any limitations in [10]. ]

- [FDD – The DRNS shall return these codes in the *Sets of HS-SCCH Codes* IE along with the corresponding per-cell *HS-DSCH-RNTI* IE in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE of the RADIO LINK RECONFIGURATION RESPONSE.]

- [FDD – The DRNS shall use the first in the numbered list the primary serving HS-DSCH cell's of HS-SCCH codes in the *HS-SCCH Preconfigured Codes* IE sent to the SRNC to signal the Target Cell HS-SCCH Order defined in [18].]

- [FDD – The DRNS shall include, in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message, IEs according to the rules defined for HS-DSCH Setup at Serving HS-DSCH Radio Link Change and:]

  - [FDD – if *HARQ Preamble Mode* IE is included in the *HS-DSCH Preconfiguration Setup* IE the HARQ Preamble Mode Activation Indicator IE.]

  - [FDD – if *MIMO Activation Indicator* IE is included in the *HS-DSCH Preconfiguration Setup* IE the *MIMO N/M Ratio* IE.]

  - [FDD – if *HS-DSCH MAC-d PDU Size Format* IE is included in the *HS-DSCH Preconfiguration Setup* IE and set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used for the cell in the preconfiguration the *HS-DSCH TB Size Table Indicator* IE for each preconfigured cell.]

  - [FDD – if *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *Secondary Cells* IE in the *HS-DSCH Preconfiguration Setup* IE or in the *HS-DSCH Preconfiguration Setup* IE the *SixtyfourQAM DL Usage Indicator* IE for each preconfigured cell.]

  - [FDD – if *Continuous Packet Connectivity HS-SCCH less Information* IE is included in the *HS-DSCH Preconfiguration Setup* IE the *Continuous Packet Connectivity HS-SCCH less Information Response* IE.]

  - [FDD – if the *UE with enhanced HS-SCCH support indicator* IE is included in the *HS-DSCH Preconfiguration Setup* IE, then the DRNS shall store this information in the preconfigured configuration.]

  - [FDD – the *SixtyfourQAM DL Support Indicator* IE may be included.]

- [FDD – If the *UE Support Indicator Extension* IE is included in the *HS-DSCH Preconfiguration Setup* IE, then the DRNS may store this information in the preconfigured configuration.]

- [FDD – The DRNS shall include in the *HS-DSCH Preconfiguration Info* IE in the *RL Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message the *E-DCH FDD DL Control Channel Information* containing the preconfigured configuration of the E-DCH serving cell according to the rules defined for Serving E-DCH Radio Link Change as follows:]

  - [FDD – The DRNS shall allocate for the preconfigured configuration a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE.]

  - [FDD – The DRNS may preconfigure the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the serving E-DCH RL and include these values in the *E-DCH FDD DL Control Channel Information* IE.]

- [FDD – If the *Power Offset For S-CPICH for MIMO Request Indicator* IE is included, the DRNC shall, if supported and MIMO pilot configuration with Primary and Secondary CPICH is set up on the cell where HS-DSCH is preconfigured, include the *Power Offset For S-CPICH for MIMO* IE in the *HS-DSCH Preconfiguration Info* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Non-Serving RL Preconfiguration Setup* IE in the *RL Information* IE and:]

- [FDD – if the choice of *new Serving RL* is "New Serving RL in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE and/or *New non-serving RL E-DCH FDD DL Control Channel Information B* IE in the *Non-Serving RL Preconfiguration Info* IE for the RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – if the choice of *new Serving RL* is "New Serving RL Not in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information C* IE in the *Non-Serving RL Preconfiguration Info* IE for the RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – if the choice of *new Serving RL* is "New Serving RL in the DRNS or New Serving RL Not in the DRNS", the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE, the *New non-serving RL E-DCH FDD DL Control Channel Information B* IE and/or the *New non-serving RL E-DCH FDD DL Control Channel Information C* for the RL in the *Non-Serving RL Preconfiguration Info* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – if the *Additional E-DCH Non-Serving RL Preconfiguration Setup* IE is included, the DRNC may include the *New non-serving RL E-DCH FDD DL Control Channel Information A* IE, the *New non-serving RL E-DCH FDD DL Control Channel Information B* IE and/or the *New non-serving RL E-DCH FDD DL Control Channel Information C* IE according to the choice of new Serving RL in *Additional E-DCH New non-serving RL E-DCH FDD DL Control Channel Information* IE for the additional non serving E-DCH RL in the *Non-Serving RL Preconfiguration Info* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[FDD – Enhanced HS Serving Cell Change:]**

[FDD –-Upon receipt of the RADIO LINK RECONFIGURATION REQUEST message, if the Enhanced HS Serving Cell Change is preconfigured in the DRNS for the UE context, the DRNS may execute the Enhanced HS Serving Cell Change procedure according to [63]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Enhanced HS Serving CC Abort* IE in the *HS-DSCH Information To Modify Unsynchronised* IE or the *HS-DSCH FDD Information* IE then the DRNS shall not execute the unsynchronized Enhanced HS Serving Cell Change procedure when performing the Serving HS-DSCH Radio Link Change or the HS-DSCH Setup.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *No of Target Cell HS-SCCH Order* IE then the DRNS shall repeat the Target Cell HS-SCCH Order on the HS-SCCH the number of times defined in the IE.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Non-Serving RL Preconfiguration Removal* IE, the DRNC shall remove the corresponding preconfigured E-DCH DL Control Channel Information according to the information.]

**[FDD – E-DCH Setup:]**

[FDD – If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message then:]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH FDD Information* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, the DRNS shall, if supported, consider the data of the related E-DCH Logical Channel for UE Aggregate Maximum Bit Rate Enforcement.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH Information* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel and use the indicated format in user plane frame structure for E-DCH channels [32] and MAC [41].]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being “E-DCH Non-Scheduled Transmission Grant” for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD – If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being “E-DCH Scheduled Transmission Grant” for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD – The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value “RRC” in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD – If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for a E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to “Bundling” and the *E-TTI* IE is set to “2ms”, then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related Mac-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related Mac-d flow.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *HS-DSCH Configured Indicator* IE and/or the *Maximum Set of E-DPDCHs* IE, and/or the *Puncture Limit* IE and/or the *E-TTI* IE, the DRNS shall use and apply the value(s) in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

    - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

**[FDD – E-DCH Radio Link Handling:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

- [FDD – The DRNC shall setup the E-DCH resources, as requested or as configured in the UE context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD – The DRNC may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNC may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD – The DRNC shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* set to "Non E-DCH".]

- [FDD – For each RL for which the *E-DCH RL Indication* IE is set to "E-DCH", and which has or can have a common generation of E-RGCH information with another RL (current or future) when the DRNS would contain the E-DCH serving RL, the DRNS shall include the *E-DCH RL Set ID* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the SRNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

**[FDD – Serving E-DCH Radio Link Change:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD – If the old Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link.]

- [FDD – If the new Serving E-DCH RL is within this DRNS:]

    - [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *RL*

*Information Response* IE for the indicated RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the initial grant for the new serving E-DCH RL.]

- [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If a serving cell change is performed the RADIO LINK RECONFIGURATION RESPONSE message may contain invalid data (see 9.2.2.4C).]

- [FDD – The DRNS may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the new serving E-DCH RL.]

- [FDD – The DRNS may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every E-DCH Radio Links in the DRNS.]

- [FDD – If the DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

**[FDD – E-DCH Modification:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD – If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [FDD – If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD – If *Traffic Class* IE is included for an E-DCH MAC-d flow the DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this specific E-DCH MAC-d flow indicates the value “RRC”.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Data Description Indicator* IE, the DRNC shall use the DDI values indicated in the *Data Description Indicator* IE in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH FDD Information To Modify* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow in the *E-DCH FDD Information To Modify* IE, then the DRNS shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the DRNS shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD – If the RADIO LINK RECONFIGURATION RE QUEST message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the DRNS shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also removed.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Modify* IE, the DRNS shall use this information to modify the indicated logical channels.]

  - [FDD – If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the DRNS shall apply the values in the new configuration.]

  - [FDD – If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the DRNS shall apply the values in the new configuration.]

  - [FDD – If the *E-DCH Logical Channel To Modify* IE includes the *Maximum MAC-d PDU Size Extended* IE, the DRNC shall apply the value in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the E-DCH serving RL is in this DRNS, the DRNS may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE in the *E-DCH FDD Information To Modify* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

  - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH DL Control Channel Grant Information* IE in the *E-DCH FDD Information To Modify* IE, the DRNS may modify E-AGCH Channelisation Code, E-RGCH/E-HICH Channelisation Code, E-RGCH Signature Sequence and/or E-HICH Signature Sequence for the E-DCH RL indicated by the *E-DCH RL ID* IE. The DRNC shall then report the modified configuration which is used in the new configuration specified in the *E-DCH FDD DL Control Channel Information* IE for each E-DCH RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[FDD – E-DCH MAC-d Flow Addition:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Add* IE, then the DRNS shall use this information to add the indicated E-DCH MAC-d flows.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH MAC-d Flows To Add* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD – The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information IE* in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *UE Aggregate Maximum Bit Rate Enforcement Indicator* IE in the *E-DCH Logical Channel Information IE* in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall, if supported, consider the data of the related E-DCH Logical Channel for UE Aggregate Maximum Bit Rate Enforcement.]

**[FDD – E-DCH MAC-d Flow Deletion:]**

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IEs, then the DRNS shall use this information to delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration shall also be removed.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the UE Context, then the DRNC shall delete the E-DCH configuration from the UE Context and release the E-DCH resources.]

**[FDD – Additional E-DCH Setup:]**

[FDD – If the *Additional E-DCH Cell Information RL Reconf Req* IE is present in the RADIO LINK RECONFIGURATION REQUEST message and the choice of *Setup, Configuration Change or Removal of E-DCH On Secondary UL Frequency* is "Setup", then the *Additional E-DCH Cell Information Setup* IE defines the new configuration and then:]

- [FDD – If the *C-ID* IE is included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the *C-ID* IE indicates the cell in which the additional E-DCH shall be setup]
  - [FDD – The DRNS shall setup the E-DCH on the secondary uplink frequency and setup the requested E-DCH resources on the Radio Links and in the cells indicated by the *E-DCH Additional RL ID* IE and the *C-ID* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE.]
- [FDD – If the *C-ID* IE is not included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the *E-DCH Additional RL ID* IE indicates the existing RL on which the additional E-DCH shall be setup.]
  - [FDD – The DRNS shall setup the additional E-DCH on the Radio Links indicated by the *E-DCH Additional RL ID* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE]
- [FDD – The DRNS shall use for the non cell specific Radio Link related parameters and non cell specific E-DPCH, UL DPCH, E-DCH and F-DPCH parameters the same values as for the corresponding cell of the Primary uplink frequency.]
- [FDD – If the *UL SIR Target* IE in the *UL DPCH Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE and/or the *DL Power Balancing Information* IE and/or the *Minimum Reduced E-DPDCH Gain Factor* IE in the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE are present, the DRNS shall use the information in the same same way as for the information used on Primary uplink frequency.]
- [FDD – If the *Secondary UL Frequency Activation State* IE is present in the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE, the DRNS shall use the information as initial activation state of the Radio Links on the secondary uplink frequency.]
- [FDD – If the *Initial DL Tx Power* IE, the *Primary CPICH Ec/No* IE, the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE and/or the *E-HICH Power Offset* IE is included in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]
- [FDD – If the *Enhanced Primary CPICH Ec/No* IE is included in the *Multicell E-DCH RL Specific Information* IE in the *Additional E-DCH Secondary RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]
- [FDD – If the *F-DPCH Slot Format Support Request* IE in the *F-DPCH Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE is included, the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf*IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *Multicell E-DCH Information* IE in the *Additional E-DCH FDD Setup Information* IE includes the *F-DPCH Slot Format* IE, the DRNS may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]
- [FDD – If the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the *E-DCH Maximum Bitrate* IE, the *E-DCH Minimum Set E-TFCI* IE and/or the *E-DCH Processing Overload Level* IE are present in the *Additional E-DCH FDD Information* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE, the DRNS shall use the information in the same way as for the information used on Primary uplink frequency.]

- [FDD – If activation of power balancing for the Additional E-DCH RL by the RADIO LINK RECONFIGURATION REQUEST message is supported by the DRNS, the DRNS shall include the *DL Power Balancing Activation Indicator* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – For each Additional E-DCH RL not having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall set the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message to a value that uniquely identifies the RL as a RL Set within the UE Context. The generation of E-HICH related information for Additional E-DCH RLs in different RL Sets shall not be common.]

- [FDD – For all Additional E-DCH RLs having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall assign to each Additional E-DCH RL the same value for the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. This value shall uniquely identify these Additional E-DCH RLs as members of the same RL Set within the UE Context. The generation of E-HICH information for all Additional E-DCH RLs in a RL Set shall be common.]

- [FDD – For each Additional E-DCH RL which has or can have a common generation of E-RGCH information with another Additional E-DCH RL (current or future) when the DRNS would contain the Additional E-DCH serving RL, the DRNS shall set a same value to the *E-DCH RL Set ID* IE for the Additional E-DCH RL in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message]

- [FDD – For every additional E-DCH RL indicated in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE the DRNS may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNS may include the corresponding *E-RGCH Signature Sequence* IE for each Additional E-DCH RL in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message and if DRNS has no valid data for the *E-RGCH/E-HICH Channelisation Code* IE, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE to indicate that the *E-RGCH/E-HICH Channelisation Code* IE contains invalid data.]

- [FDD – If the Additional Serving E-DCH Radio Link is configured in the DRNS, then:]

  - [FDD – The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

  - [FDD – The DRNS may include in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE for the initial grant for the Additional serving E-DCH RL and may include the *Default Serving Grant in DTX Cycle 2* IE.]

  - [FDD – If the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link on the secondary UL frequency, the DRNS shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If Secondary CPICH may be used as a Phase Reference for this Radio Link on the secondary UL frequency, the DRNS shall include the *Secondary CPICH Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the DRNS doesn't include the *Secondary CPICH Information*

IE, it shall not include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used".]

**[FDD – Additional E-DCH Configuration Change]**

[FDD – If the *Additional E-DCH Cell Information RL Reconf Req* IE is present in the RADIO LINK RECONFIGURATION REQUEST message and the choice of *Setup, Configuration Change or Removal of E-DCH On Secondary UL Frequency* is "Configuration Change", then the *Additional E-DCH Cell Information Configuration Change* IE defines the new configuration and then:]

- [FDD – If the *Minimum Reduced E-DPDCH Gain Factor* IE and/or the *Common DL Reference Power* IE is present in the *Multicell E-DCH Information* IE in the *Additional E-DCH Configuration Change Information* IE IE the DRNS shall use the information in the same way as for the information that is used on the Primary uplink frequency.]

- [FDD. If the UE Context is configured for F-DPCH Slot Format operation, the DRNS shall include the *F-DPCH Slot Format* IE in the *Additional E-DCH FDD Information Response* IE for new RLs on the secondary UL frequency or in the *Additional Modified E-DCH FDD Information Response* IE for modified RLs in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[FDD – Additional E-DCH RL Addition:]**

[FDD – If the *Additional E-DCH RL Specific Information To Add* IE is present in the *Additional E-DCH Configuration Change Information* IE in the *Additional E-DCH Configuration Change Information* IE, then:]

- [FDD – The DRNS shall setup the E-DCH resources, as requested or as configured in the UE context, on the Radio Links indicated by the *E-DCH Additional RL ID* IE. Non cell specific Radio Link related parameters and non cell specific E-DPCH, UL DPCH, E-DCH and F-DPCH parameters shall take the same values as for the corresponding cell of the Primary uplink frequency.]

- [FDD – If the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE, the *E-HICH Power Offset* IE is included, the DRNS shall use the information in the same way as for the information used on the Primary uplink frequency.]

- [FDD – If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing Additional E-DCH RL(s) and the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power* IE in the *Multicell E-DCH RL Specific Information* IE, the DRNS shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new Additional RL(s), if activation of power balancing by the RADIO LINK RECONFIGURATION REQUEST message at RL addition on secondary UL frequency is supported, according to subclause 8.3.15. In this case, the DRNS shall include the *DL Power Balancing Activation Indicator* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. $P_{init}$ shall be set to the power level which is calculated based on the following IEs (if received): *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE in the *Multicell E-DCH RL Specific Information* IE or to the power level which is calculated based on the power relative to the Primary CPICH power used by the existing Additional RLs.]

- [FDD – For each Additional E-DCH RL not having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall set the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message to a value that uniquely identifies the RL as a RL Set within the UE Context. The generation of E-HICH related information for Additional E-DCH RLs in different RL Sets shall not be common.]

- [FDD – For all Additional E-DCH RLs having a common generation of the TPC commands in the DL with another Additional E-DCH RL, the DRNS shall assign to each Additional E-DCH RL the same value for the *RL Set ID* IE included in the *Additional E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. This value shall uniquely identify these Additional E-DCH RLs as members of the same RL Set within the UE Context. The generation of E-HICH information for all Additional E-DCH RLs in a RL Set shall be common.]

- [FDD – For each Additional E-DCH RL which has or can have a common generation of E-RGCH information with another Additional E-DCH RL (current or future) when the DRNS would contain the Additional E-DCH serving RL, the DRNS shall set a same value to the *E-DCH RL Set ID* IE for the Additional E-DCH RL in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message]

- [FDD – For every additional E-DCH RL indicated in the *Additional E-DCH RL Specific Information To Add* IE, the DRNS may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNS may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the *Additional E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message and if DRNS has no valid data for the *E-RGCH/ E-HICH Channelisation Code* IE, then it shall insert the *E-RGCH/ E-HICH Channelisation Code Validity Indicator* IE to indicate that the *E-RGCH/ E-HICH Channelisation Code* IE contains invalid data.]

- [FDD – If the *Primary CPICH Ec/No* IE or the *Primary CPICH Ec/No* IE and the *Enhanced Primary CPICH Ec/No* IE in the *Multicell E-DCH RL Specific Information* IE measured by the UE are included for a RL in the RADIO LINK RECONFIGURATION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power for this additional RL. If the *Primary CPICH Ec/No* IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLs.]

**[FDD – Additional E-DCH RL Modification:]**

[FDD – If the *Additional E-DCH RL Specific Information To Modify* IE is present in the *Additional E-DCH Configuration Change Information* IE, then the additional E-DCH RL indicated by the *E-DCH Additional RL ID* IE indicates the RL on which E-DCH resources shall be modified:]

- [FDD – If the *E-AGCH Power Offset* IE, the *E-RGCH Power Offset* IE, the *E-HICH Power Offset* IE, and/or the *E-DCH DL Control Channel Grant* IE in the *Multicell E-DCH RL Specific Information* IE is included, the DRNS shall use the information in the same way as for the information used on the Primary uplink frequency.]

- [FDD – If the *DL Reference Power* IEs is included in the *Multicell E-DCH RL Specific Information* IE and power balancing is active, DRNS shall apply DL power Control in the same way as defined for the Primary uplink frequency.]

- [FDD – If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the DRNS, the DRNS shall include the *DL Power Balancing Updated Indicator* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE for each affected RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the RADIO LINK RECONFIGURATION RESPONSE message includes the *Primary CPICH Usage For Channel Estimation* IE and/or the *Secondary CPICH Information Change* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE, the DRNS shall avoid the new configuration in which neither the Primary CPICH nor the Secondary CPICH is used as a Phase Reference for this Radio Link.]

**[FDD – Additional E-DCH Modification:]**

[FDD – If the *Additional E-DCH FDD Information To Modify* IE is present in the *Additional E-DCH Configuration Change Information* IE, then:]

- [FDD – If the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the *E-DCH Minimum Set E-TFC*I IE and/or the *E-DCH Maximum Bitrate* IE is included, the DRNS shall use this information for the related resource allocation operation.]

- [FDD – If the *E-DCH Processing Overload Level* IE is included, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH*

*Processing Overload Level* IE, because of processing issue, the DRNS shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD – If the DL TX power upper or lower limit has been re-configured for the secondary UL frequency, the DRNS shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

- [FDD – The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s), and the DRNS shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE in the *Additional Modified E-DCH FDD Information Response* IE in the *Additional E-DCH Cell Information Response RLReconf* IE for each Radio Link when these values are changed.]

- [FDD – If the Additional E-DCH serving RL is in this DRNS, the DRNS may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled transmission. In this case the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE in the *Additional Modified E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[FDD – Additional E-DCH Removal]**

[FDD – If the *Additional E-DCH Cell Information RL Reconf Req* IE is present in the RADIO LINK RECONFIGURATION REQUEST message and the choice of *Setup, Configuration Change or Removal of E-DCH On Secondary UL Frequency* is “Removal”, then the additional E-DCH on the secondary uplink frequency shall be removed.]

**[TDD – Intra- DRNS Serving E-DCH Radio Link Change:]**

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [TDD – In the new configuration the DRNS shall de-allocate the E-DCH resources of the old Serving E-DCH Radio Link and allocate the E-DCH resources for the new Serving E-DCH Radio Link.]

- [3.84Mcps TDD – The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE in the *E-DCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28Mcps TDD – The DRNS shall allocate E-AGCH parameters and E-HICH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE and the *E-HICH Specific Information Response* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [7.68Mcps TDD – The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response 7.68Mcps* IE in the *E-DCH TDD Information Response 7.68Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD – If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

**[TDD – E-PUCH Handling:]**

[3.84Mcps TDD and 7.68Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-PUCH Information* IE, the DRNS shall apply the parameters to the new configuration.]

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-PUCH Information LCR* IE, the DRNS shall apply the parameters to the new configuration]

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes an *E- TFCS Information* IE, the DRNS shall apply the beta parameters to the new configuration.]

**[3.84Mcps TDD – E-DCH Setup:]**

[3.84Mcps TDD – the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information* IE.]

**[1.28Mcps TDD – E-DCH Setup:]**

[1.28cps TDD – the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information LCR* IE.]

**[7.68Mcps TDD – E-DCH Setup:]**

[7.68Mcps TDD – the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information 7.68Mcps* IE.]

**[TDD- E-DCH MAC-d Flow Addition/Deletion:]**

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a E-DCH Logical Channel in the *E-DCH MAC-d Flows Information* IE in the *E-DCH TDD Information To Add* IE, then the DRNS shall ignore the *MAC-d PDU Size* IE in the *MAC-d PDU Size List* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related E-DCH Logical Channel.]

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the UE Context, then the DRNS shall delete the E-DCH configuration from the UE Context and release the E-DCH resources.]

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [1.28Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Maximum Bit Rate LC*R IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

**[3.84Mcps TDD – E-DCH Non-scheduled allocations:]**

[3.84Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information TDD* IE in the *E-DCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[1.28Mcps TDD – E-DCH Non-scheduled allocations:]**

[1.28Mcps – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information LCR TDD* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[7.68Mcps TDD – E-DCH Non-scheduled allocations:]**

[7.68Mcps TDD – The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information* 7.68Mcps *TDD* IE in the *E-DCH Information Response* 7.68Mcps IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

**[3.84Mcps TDD – E-DCH Modification:]**

[3.84Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information* IE, then:]

- [3.84Mcps TDD – If the *E-DCH TDD Information* IE includes the *E-DCH TDD Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD – If the *E-DCH TDD Information* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [3.84Mcps TDD – If the *E-DCH TDD Information* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

**[1.28Mcps TDD – E-DCH Modification:]**

[1.28Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information LCR* IE, then:]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE, then the DRNS shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

**[7.68Mcps TDD – E-DCH Modification:]**

[7.68Mcps TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information 7.68Mcps* IE, then:]

- [7.68Mcps TDD – If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD – If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [7.68Mcps TDD – If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information To Modify* IE, then:]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains a *TNL QoS* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the DRNS shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [1.28Mcps TDD – If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Retransmission Timer* IE for an E-DCH MAC-d flow then the DRNS shall use this information to set the retransmission timer.]

- [TDD– If the *TNL QoS* IE is included in the *E-DCH TDD Information to Modify* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH HARQ Power Offset TDD* IE for an E-DCH MAC-d flow the DRNS shall use this new power offset value.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains the *E-DCH Grant Type* IE, the DRNS shall treat the E-DCH MAC-d flow as Scheduled or Non-scheduled accordingly.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the DRNS shall use this information to add/delete the indicated logical channels. When a logical channel is deleted, all its associated configuration data shall also removed.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Modify* IE, the DRNS shall use this information to modify the indicated logical channels:]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the DRNS shall apply the values in the new configuration.]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the DRNS shall apply the values in the new configuration.]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the DRNS shall apply the values in the new configuration.]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes E-*DCH DDI Value* IE, the DRNS shall apply the values in the new configuration.]

  - [1.28Mcps TDD – If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Maximum Bit Rate LC*R IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

  - [TDD – If the *E-DCH Logical Channel To Modify* IE includes the *Maximum MAC-d PDU Size Extended* IE, the DRNC shall apply the value in the new configuration.]

- [TDD– If the *E-DCH TDD Information To Modify* IE includes the *MAC-e Reset Indicator* IE, then the DRNS shall use this value to determine whether MAC-e (or MAC-i) Reset is performed in the UE for sending the HARQ Failure Indication.]

**General:**

If the requested modifications are allowed by the DRNS, and if the DRNS has successfully allocated the required resources and changed to the new configuration, the DRNC shall respond to the SRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Specific DCH Information* IE, *HS-DSCH Information* IE, *HS-DSCH Information To Modify Unsynchronised* IE, *HS-DSCH MAC-d Flows To Add* IE, [FDD – *RL Specific E-DCH Information* IE] [TDD – *E-DCH MAC-d Flows to Add* IE], the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel [FDD – for which the *Transport Bearer Not Requested Indicator* IE is not included], HS-DSCH

MAC-d flow being added or E-DCH MAC-d flow [FDD – for which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel [FDD – for which the *Transport Bearer Not Requested Indicator* IE was not included] or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the RADIO LINK RECONFIGURATION RESPONSE message for any Transport Channel [FDD – for which the *Transport Bearer Not Requested Indicator* IE is not included], HS-DSCH MAC-d flow being added or E-DCH MAC-d flow [FDD – for which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel [FDD – for which the *Transport Bearer Not Requested Indicator* IE was not included], HS-DSCH MAC-d flow or E-DCH MAC-d flow [FDD – for which the *Transport Bearer Not Requested Indicator* IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1, and in [32], subclause 5.3.2.

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer Shall not be Established" for a DCH or an E-DCH MAC-d flow being added, then the DRNC shall not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH or an E-DCH MAC-d flow being added and:]

  - [FDD – if the DRNC establishes a transport bearer for the concerned DCH or E-DCH MAC-d flow, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH or E-DCH MAC-d flow being established.]

  - [FDD – if the DRNC does not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION RESPONSE message.]

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE only for one of the DCHs [FDD – for which the *Transport Bearer Not Requested Indicator* IE is not included] in the set of co-ordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the DRNS, the DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE [FDD for the concerned DCH for which the *Transport Bearer Not Requested Indicator* IE is not included]in the *DCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message for only one of the combined Radio Links.

[FDD – In the case of an E-DCH RL being combined with another E-DCH RL within the DRNS, the *E-DCH FDD Information Response* IE shall be included only for one of the combined E-DCH RLs.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Additional E-DCH Cell Information RL Reconf Req* IE, then:]

- [FDD – if the *Multicell E-DCH Transport Bearer Mode* IE for an Additional E-DCH to be Setup is set to "Separate Iur Transport Bearer Mode" the DRNS shall use this mode in the new configuration and apply separate transport bearers for the MAC-d flows.]

- [FDD – if the *Multicell E-DCH Transport Bearer Mode* IE for an Additional E-DCH to be Setup is set to "UL Flow Multiplexing Mode" the DRNS shall use this mode in the new configuration and multiplex MAC-d flows on the transport bearers.]

- [FDD – if Separate Iur Transport Bearer Mode is used in the new configuration, then:]

  - [FDD – the DRNS shall follow the rules defined in this procedure for single carrier mode of operation for establishment of the transport bearer for a MAC-d flow, use the *Transport Bearer Not Requested Indicator* IE in the *RL Specific E-DCH Information* IE in the *RL Information* IE and/or the *Transport Bearer Request Indicator* IE in the *E-DCH FDD Information To Modify* IE received for the corresponding Radio Link(s) of the Primary Uplink Frequency to determine the transport bearer configuration in the new configuration for the radio links of the Secondary Uplink Frequency.]

- [FDD – If the *Transport Layer Address* IE and *Binding ID* IE is included for an E-DCH MAC-d flow in the *Additional E-DCH MAC-d Flows Specific Information* IE in the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE or in the *Additional E-DCH RL Specific Information To Add* IE and/or the *Additional E-DCH RL Specific Information To Modify* IE in the *Additional E-DCH Configuration Change Information* IE in the *Additional E-DCH Cell Information Configuration Change* IE, then the DRNS may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow. If the DRNS establishes a transport bearer for the concerned E-DCH MAC-d flow the DRNS shall, for establishment of the transport bearer, include in the RADIO LINK RECONFIGURATION RESPONSE message in the *Additional E-DCH Cell Information Response RLReconf* IE the *Binding ID* IE and *Transport Layer Address* IE in the *Additional E-DCH MAC-d Flow Specific Information Response* IE in the *Additional E-DCH FDD Information Response* IE for new E-DCH radio links on the Secondary UL frequency and/or include the *Binding ID* IE and *Transport Layer Address* IE in the *Additional E-DCH MAC-d Flow Specific Information Response* IE in the *Additional Modified E-DCH FDD Information Response* IE for radio links on the Secondary UL frequency that has been modified.]

Any allowed rate for the uplink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

Any allowed rate for the downlink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s), and the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link when these values are changed.

[FDD – If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH or on the F-DPCH of the RL except, if the UE Context is configured to use DPCH in the downlink, during compressed mode, when the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[3.84 Mcps TDD and 7.68 Mcps TDD – If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the new value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/*CCTrCH Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/*CCTrCH Minimum DL TX Power* IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD – If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the new value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

### 8.3.7.3 Unsuccessful Operation

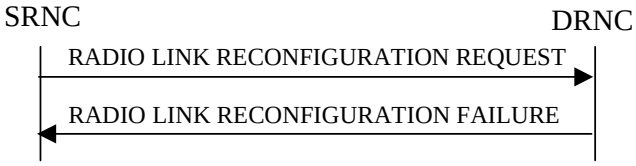



**Figure 15: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation**

If the DRNS cannot allocate the necessary resources for all the new DCHs in a set of co-ordinated DCHs requested to be added, it shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s), the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure.

[FDD – If the *MIMO Activation Indicator* IE is included and the *Power Offset For S-CPICH for MIMO Request Indicator* IE is not included in the *HS-DSCH FDD Information* IE in the *HS-DSCH Serving Cell Change Information* IE in the RADIO LINK RECONFIGURATION REQUEST message or MIMO is activated and the power offset for S-CPICH for MIMO Request indicator has not been configured in the UE Context but MIMO pilot configuration with Primary and Secondary CPICH is set up with a non-zero power offset on the cell where the Serving HS-DSCH Radio Link is established, the setup of the serving HS-DSCH Radio Link, and/or activation of MIMO, shall be reported as failed and the DRNC shall include in the RADIO LINK RECONFIGURATION FAILURE message the *Cause* IE.]

Typical cause values are:

**Radio Network Layer Causes:**

UL Scrambling Code Already in Use;
DL Radio Resources not Available;
UL Radio Resources not Available;
Requested Configuration not Supported;
CM not Supported;
E-DCH not supported;
[FDD – Continuous Packet Connectivity DTX-DRX operation not Supported;]
[FDD – Continuous Packet Connectivity HS-SCCH less operation not Supported;]
[FDD – MIMO not supported;]
[FDD – E-DCH TTI2ms not supported;]
[FDD – Continuous Packet Connectivity DTX-DRX operation not available;]
[FDD – Continuous Packet Connectivity UE DTX Cycle not available;]
[FDD – MIMO not available;]
[FDD – SixteenQAM UL not Supported;]
HS-DSCH MAC-d PDU Size Format not supported;
E-DCH MAC-d PDU Size Format not available;
[FDD – E-DPCCH Power Boosting not supported;]
[FDD – SixtyfourQAM DL and MIMO Combined not available;]
[FDD – Multi Cell operation not available;]
[FDD – Multi Cell operation not supported;]
[FDD – SixtyfourQAM DL and MIMO Combined not supported;]
[1.28Mcps TDD – MIMO not available;]
[1.28Mcps TDD- SixteenQAM UL not Supported;]
[1.28Mcps TDD – SixtyfourQAM DL and MIMO Combined not available;]
[FDD – Single Stream MIMO not supported;]
[FDD – Single Stream MIMO not available;]
[FDD – Multi Cell operation with MIMO not available;]
[FDD – Multi Cell operation with MIMO not supported;]
[FDD – Multi Cell E-DCH Operation not supported;]
[FDD – Multi Cell E-DCH Operation not available;]
[FDD – Multi Cell operation with Single Stream MIMO not available;]
[FDD – Multi Cell operation with Single Stream MIMO not supported.]

**Miscellaneous Causes:**

Control Processing Overload;
Not enough User Plane Processing Resources.

### 8.3.7.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed, and the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE, but the power balancing is not active in the indicated RL(s), the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD – If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Individual DL Reference Power Information* IE, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD – If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Common DL Reference Power* IE, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be established, the DRNC shall reject the Unsynchronised Radio Link Reconfiguration procedure, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the UE Context, the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Indexed MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use Maximum MAC-d PDU Size Extended, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Flexible MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use MAC-d PDU Size Index, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the UE Context is configured to use "Fixed MAC-d PDU Size" for an E-DCH and there exist a Logical Channel of the MAC-d flows of the E-DCH that is configured to use Maximum MAC-d PDU Size Extended, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Flexible MAC-d PDU Size" for an E-DCH and there exist a Logical Channel of the MAC-d flows of the E-DCH that is configured to use MAC-d PDU Size List, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, but the *E-DPCH Information* IE is not present or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE, *E-TTI* IE, *E-DPCCH Power Offset* IE, *E-RGCH 2-Index-Step Threshold* IE, *E-RGCH 3-Index-Step Threshold* IE, *HARQ Info for E-DCH* IE or *HS-DSCH Configured Indicator* IE are not present in the *E-DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If any of the *HS-DSCH Configured Indicator* IE, *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE or *E-TTI* IE are present in the *E-DPCH Information* IE and the *E-DCH FDD Information* IE is not present in the RADIO LINK RECONFIGURATION REQUEST message, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the UE Context is not configured for E-DCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and/or the *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the new configuration but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the UE Context is not configured for E-DCH, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE in addition to the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE in addition to the *Continuous Packet Connectivity HS-SCCH less Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message. ]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE while the Continuous Packet Connectivity HS-SCCH less configuration isn't configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity *DTX-DRX* configuration isn't configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *DRX Information To Modify* IE in *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity DRX configuration is not configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only" but no *Transport Format Set* IE for the uplink for this DCH and the DRNC had ignored the configuration of Transport Format Set for uplink, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only" but no *Transport Format Set* IE for the downlink for this DCH and the DRNC had ignored the configuration of Transport Format Set for downlink, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d flow but does not contain the corresponding *DCH ID* IE and the *Unidirectional DCH indicator* IE set to "Uplink DCH only" for the DCH in *DCH Information To Add* IE or does not contain the corresponding *E-DCH MAC-d Flow ID* IE in *E-DCH MAC-d Flows Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to apply UL DPCCH Slot Format 0 or 2 and execute Continuous Packet Connectivity DTX-DRX operation, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to apply MIMO, allowed to apply 64QAM, establish the secondary serving HS-DSCH Radio Link or apply Single Stream MIMO in the new configuration but is not configured to use flexible MAC-d PDU Size, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *Additional HS Cell Information RL Reconf Req* IE indicating a new seconadry serving cell that is not in the same Node B as the serving HS-DSCH cell (or new serving in case of simultaneous serving HS-DSCH cell change), then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH in the *RL Specific DCH Information* IE but does not include the *DCH ID* IE for the DCH in the

*DCHs to Add* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for an E-DCH MAC-d flow in the *RL Specific E-DCH Information* IE but does not include the *E-DCH MAC-d flow ID* IE for the E-DCH MAC-d flow in the *E-DCH MAC-d flows Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but the concerned UE Context is not previously configured to use F-DPCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message]

[FDD – If the concerned UE Context is configured to have the Serving E-DCH Radio Link but there is at least one E-DCH MAC-d flow which the transport bearer is not configured for the Serving E-DCH Radio Link in DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d Flow for a specific RL and the specific RL is combined with existing RL which the transport bearer is established for the DCH or the E-DCH MAC-d Flow in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If ALCAP is not used, if the concerned UE Context is configured to establish a DCH, an E-DCH MAC-d flow and/or an HS-DSCH MAC-d flow but the RADIO LINK RECONFIGURATION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE for the DCH, the E-DCH MAC-d flow and/or HS-DSCH MAC-d flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use "Flexible RLC PDU Size" for an HS-DSCH but is not configured to use Maximum MAC-d PDU Size Extended, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use MAC-d PDU Size Index for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use "Flexible RLC PDU Size", the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains a *MIMO Activation Indicator* IE and a *Single Stream MIMO Activation Indicator* IE in the *HS-DSCH FDD Information* IE or in the *HS-DSCH FDD Secondary Serving Information* IE in the *Additional HS Cell Information RL Reconf Req* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the concerned UE Context is configured to apply MIMO and Single Stream MIMO for the HS-DSCH Radio Link or the Secondary Serving Radio link, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *Additional E-DCH Cell Information RL Reconf Req* IE and if the *E-DPCH Information* IE is not present or the E-DPCH Information was not configured in the UE Context, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *Additional E-DCH Cell Information RL Reconf Req* IE and there exist a logical channel for which the *Maximum MAC-d PDU Size Extended* IE in the *E-DCH MAC-d Flows Information* IE in the *E-DCH FDD Information* IE is not present, the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *Additional E-DCH RL Specific Information To Setup* IE in the *Additional E-DCH FDD Setup Information* IE in the *Additional E-DCH Cell Information Setup* IE in the *Additional E-DCH Cell Information RL Reconf Req* IE and the *C-ID* IE is not included but the RL indicated by the *E-DCH Additional RL ID* IE is not configured in the current UE context as a Secondary Serving HS-DSCH radio link without any configured Additional E-DCH, the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

## 8.3.8 Physical Channel Reconfiguration

### 8.3.8.1 General

The Physical Channel Reconfiguration procedure is used by the DRNS to request the SRNC to reconfigure one of the configured physical channels.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNS shall not initiate the Physical Channel Reconfiguration procedure if a Prepared Reconfiguration exists as defined in subclause 3.1, or if a Synchronised Radio Link Reconfiguration Preparation procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing for the relevant UE context.

### 8.3.8.2 Successful Operation

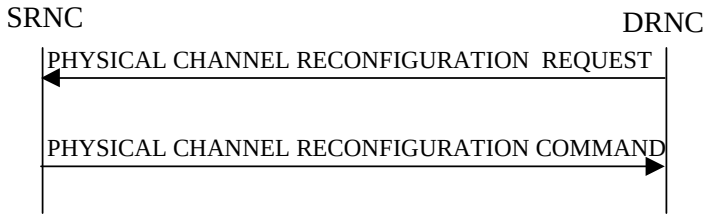



**Figure 16: Physical Channel Reconfiguration procedure, Successful Operation**

When the DRNC detects the need to modify one of its physical channels, it shall send a PHYSICAL CHANNEL RECONFIGURATION REQUEST to the SRNC.

The PHYSICAL CHANNEL RECONFIGURATION REQUEST message contains the new value(s) of the physical channel parameter(s) of the radio link for which the DRNC is requesting the reconfiguration.

[FDD – If compressed mode is prepared or active and at least one of the downlink compressed mode methods is "SF/2", the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the PHYSICAL CHANNEL RECONFIGURATION REQUEST message indicating for each DL Channelisation Code whether the alternative scrambling code will be used or not if the downlink compressed mode methods "SF/2" is activated.]

[TDD – The SRNC shall apply the new values for any of [3.84Mcps TDD – *UL Code Information* IE, *Midamble Shift And Burst Type* IE,] [1.28Mcps TDD – *UL Code Information LCR* IE, *Midamble Shift LCR* IE,] [7.68 Mcps TDD – *UL Code Information 7.68 Mcps* IE, *Midamble Shift And Burst Type 7.68 Mcps* IE,] *TDD DPCH Offset* IE, *Repetition Period* IE, *Repetition Length* IE, or *TFCI presence* IE included in the *UL DPCH Information* IE within the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the previous values specified for this DPCH shall still apply.]

[TDD – The SRNC shall apply the new values for any of [3.84Mcps TDD – *DL Code Information* IE, *Midamble Shift And Burst Type* IE,] [1.28Mcps TDD – *DL Code Information LCR* IE, *Midamble Shift LCR* IE,] [7.68 Mcps TDD – *DL Code Information 7.68 Mcps* IE, *Midamble Shift And Burst Type 7.68 Mcps* IE,] *TDD DPCH Offset* IE *Repetition Period* IE, *Repetition Length* IE, or *TFCI presence* IE included in the *DL DPCH Information* IE within the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the previous values specified for this DPCH shall still apply.]

[3.84 Mcps TDD – If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information* IE the SRNC shall apply the values of the *Midamble Shift And Burst Type* IE for each HS-PDSCH timeslot.]

[1.28 Mcps TDD – If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information LCR* IE the SRNC shall apply the values of the *Midamble Shift LCR* IE for each HS-PDSCH timeslot.]

[1.28 Mcps TDD – if the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes the *PLCCH Information* IE the SRNC shall modify, delete or grant a new PLCCH assignment to the indicated timeslot of the indicated UL DCH-type CCTrCH according to its content.]

[7.68 Mcps TDD – If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information 7.68 Mcps* IE the SRNC shall apply the values of the *Midamble Shift And Burst Type 7.68 Mcps* IE for each HS-PDSCH timeslot.]

[FDD – If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *F-DPCH Slot Format* IE the SRNC shall apply the values of the *F-DPCH Slot Formats* IE for F-DPCH Slot Format operation.]

Upon receipt of the PHYSICAL CHANNEL RECONFIGURATION REQUEST, the SRNC shall decide an appropriate execution time for the change. The SRNC shall respond with a PHYSICAL CHANNEL RECONFIGURATION COMMAND message to the DRNC that includes the *CFN* IE indicating the execution time.

At the CFN, the DRNS shall switch to the new configuration that has been requested, and release the resources related to the old physical channel configuration.

### 8.3.8.3 Unsuccessful Operation

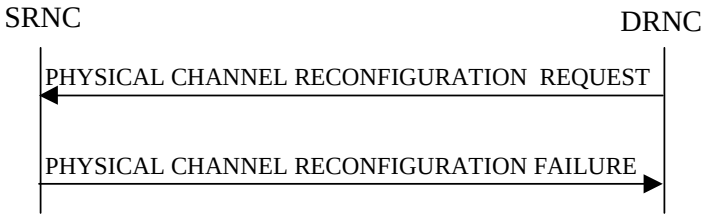



**Figure 17: Physical Channel Reconfiguration procedure, Unsuccessful Operation**

If the SRNC cannot accept the reconfiguration request it shall send the PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC, including the reason for the failure in the *Cause* IE.

Typical cause values are:

**Radio Network Layer Causes:**

- Reconfiguration not Allowed.

### 8.3.8.4 Abnormal Conditions

While waiting for the PHYSICAL CHANNEL RECONFIGURATION COMMAND message, if the DRNC receives any of the RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST, or RADIO LINK DELETION REQUEST messages, the DRNC shall abort the Physical Channel Reconfiguration procedure. These messages thus override the DRNC request for physical channel reconfiguration.

When the SRNC receives a PHYSICAL CHANNEL RECONFIGURATION REQUEST message while a Synchronised Radio Link Reconfiguration procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing, the SRNC shall ignore the request message and assume that receipt of any of the messages RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST or RADIO LINK DELETION REQUEST by the DRNC has terminated the Physical Channel Reconfiguration procedure. In this case the SRNC shall not send a PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC.

## 8.3.9 Radio Link Failure

### 8.3.9.1 General

This procedure is started by the DRNS when one or more Radio Links [FDD – or Radio Link Sets][TDD – or CCTrCHs within a Radio Link] are no longer available.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNS may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

### 8.3.9.2 Successful Operation

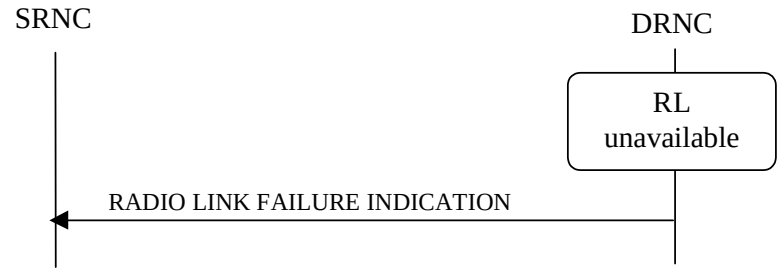



**Figure 18: Radio Link Failure procedure, Successful Operation**

When the DRNC detects that one or more Radio Link(s) [FDD – or Radio Link Set(s)] [TDD – or CCTrCHs within a Radio Link] are no longer available, it shall send the RADIO LINK FAILURE INDICATION message to the SRNC. The message indicates the failed Radio Link(s) [FDD – or Radio Link Set(s)] [TDD – or CCTrCHs] with the most appropriate cause values defined in the *Cause* IE. If the failure concerns one or more individual Radio Links the DRNC shall include the affected Radio Link(s) using the *RL Information* IE. [FDD – If the failure concerns one or more Radio Link Set(s) the DRNC shall include the affected Radio Link Set(s) using the *RL Set Information* IE.] [TDD – If the failure concerns only the failure of one or more CCTrCHs within in a radio link the DRNC shall include the affected CCTrCHs using the *CCTrCH ID* IE.]

When the RL Failure procedure is used to notify loss of UL synchronisation of a [FDD – Radio Link Set] [TDD – Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the RADIO LINK FAILURE INDICATION message shall be sent with the *Cause* IE set to "Synchronisation Failure" when indicated by the UL synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2.

[FDD – When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Link(s)/Radio Link Set(s) due to the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the *Cause Value* IE set to "Invalid CM Settings". After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link(s)/Radio Link Set(s) from the UE Context, or remove the UE Context itself.]

[FDD – When the Radio Link Failure Procedure is used to indicate E-DCH non serving cell processing issue, the RADIO LINK FAILURE INDICATION shall be sent, with the *Cause* IE set to "Not enough user plane processing resources".]

In the other cases the Radio Link Failure procedure is used to indicate that one or more Radio Link(s) [FDD – or Radio Link Set(s)] are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link from the UE Context, or remove the UE Context itself. When applicable, the allocation retention priorities associated with the transport channels shall be used by the DRNS to prioritise which Radio Links to indicate as unavailable to the SRNC.

Typical cause values are:

**Radio Network Layer Causes:**

Synchronisation Failure;
Invalid CM Settings.

**Transport Layer Causes:**

Transport Resources Unavailable.

**Miscellaneous Causes:**

Control Processing Overload;
HW Failure;
O&M Intervention;
Not enough user plane processing resources.

### 8.3.9.3 Abnormal Conditions

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## 8.3.10 Radio Link Restoration

### 8.3.10.1 General

This procedure is used to notify establishment and re-establishment of UL synchronisation of one or more [FDD – RL Set(s)] [TDD – Radio Links or CCTrCH(s) in a Radio Link] on the Uu interface.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

### 8.3.10.2 Successful Operation




**Figure 19: Radio Link Restoration procedure, Successful Operation**

The DRNC shall send the RADIO LINK RESTORE INDICATION message to the SRNC when and as specified by the UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2 [FDD -, or when the *Fast Reconfiguration Mode* IE has been included in the RADIO LINK RECONFIGURATION COMMIT message and the DRNS has detected that the UE has changed to the new configuration. The algorithm in ref. [10] shall use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

[TDD – If the re-established UL Uu synchronisation concerns one or more individual Radio Links the DRNC shall include in the RADIO LINK RESTORE INDICATION message the *RL Information* IE to indicate the affected Radio Link(s). If the re-established synchronisation concerns one or more individual CCTrCHs within a radio link the DRNS shall include in the RADIO LINK RESTORE INDICATION message the *RL Information* IE to indicate the affected CCTrCHs.] [FDD – If the re-established UL Uu synchronisation concerns one or more Radio Link Sets the DRNC shall include in the RADIO LINK RESTORE INDICATION message the *RL Set Information* IE to indicate the affected Radio Link Set(s).]

[FDD – The DRNC shall send the RADIO LINK RESTORE INDICATION message when the E-DCH processing issue condition has ceased.]

### 8.3.10.3 Abnormal Conditions

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## 8.3.11 Dedicated Measurement Initiation

### 8.3.11.1 General

This procedure is used by an SRNS to request the initiation of dedicated measurements in a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.11.2 Successful Operation

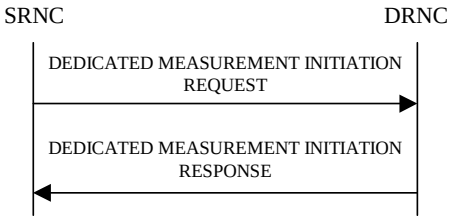



**Figure 20: Dedicated Measurement Initiation procedure, Successful Operation**

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNC shall initiate the requested dedicated measurement according to the parameters given in the DEDICATED MEASUREMENT INITIATION REQUEST message.

If the Dedicated Measurement Object Type is indicated as being "RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Links.

[FDD – If the Dedicated Measurement Object Type is indicated as being "RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Link Sets.]

[FDD – If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the UE Context.]

[TDD – If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the UE Context, provided the measurement type is applicable to the respective DPCH.]

[FDD – If the Dedicated Measurement Object Type is indicated as being "ALL RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the existing and future Radio Link Sets within the UE Context.]

[TDD – If the *DPCH ID* IE or *DPCH ID 7.68Mcps* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE, *DPCH ID 7.68Mcps* IE or *HS-SICH ID* IE is provided within the RL Information the measurement request shall apply for one existing DPCH per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this DPCH.]

[TDD – If the *HS-SICH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD – If the *Dedicated Measurement Type* IE is set to "HS-SICH reception quality ", the DRNS shall initiate measurements of the failed, missed and total HS-SICH transmissions on all of the HS-SICH assigned to this UE Context. If either the failed or missed HS-SICH transmission satisfies the requested report characteristics, the DRNS shall report the result of both failed and missed transmission measurements along with the total number of transmissions.]

**Report characteristics**

The *Report Characteristics* IE indicates how the reporting of the dedicated measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the DRNS shall report the measurement result immediately in the DEDICATED MEASUREMENT INITIATION RESPONSE message. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Periodic" and if the *CFN* IE is not provided, the DRNS shall immediately and periodically initiate the Dedicated Measurement Reporting procedure for this measurement, with a frequency as specified by the *Report Periodicity* IE. If the *CFN* IE is provided, the DRNS shall initiate a Dedicated Measurement Reporting procedure for this measurement at the CFN indicated in the *CFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Event A", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, DRNS shall not initiate the next C event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this falls occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event, the DRNS shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event E", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the *Measurement Threshold 1* IE and stays above the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the DRNS shall initiate the Dedicated Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity falls below the *Measurement Threshold 2* IE and stays below the threshold for the *Measurement Hysteresis Time* IE, the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the *Measurement Threshold 1* IE and stays below the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the DRNS shall initiate the Dedicated Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE, the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On –Demand", the DRNS is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object(s) for which a measurement is defined exists any more, the DRNS shall terminate the measurement locally without reporting this to the SRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the DRNS shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

**Higher layer filtering**

The *Measurement Filter Coefficient* IE indicates how filtering of the dedicated measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

$F_n$ is the updated filtered measurement result

$F_{n-1}$ is the old filtered measurement result

$M_n$ is the latest received measurement result from physical layer measurements, the unit used for $M_n$ is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

$A = ½^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering)

In order to initialise the averaging filter, $F_0$ is set to $M_1$ when the first measurement result from the physical layer measurement is received.

**Measurement Recovery Behavior:**

If the *Measurement Recovery Behavior* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNS shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.3.12.2.

**Response message**

If the DRNS was able to initiate the measurement requested by the SRNS it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message.

In the case in which the *Report Characteristics* IE is set to "On Demand":

- The DRNC shall include the measurement result in the *Dedicated Measurement Value* IE within the DEDICATED MEASUREMENT INITIATION RESPONSE message.

- If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT INITIATION RESPONSE message. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].

- [TDD – If the measurement was made on a particular DPCH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the DPCH ID of that DPCH in the [1.28Mcps TDD and 3.84Mcps TDD – *DPCH ID* IE] [7.68Mcps TDD – *DPCH ID 7.68Mcps* IE].]

- [TDD – If the measurement was made on a particular HS-SICH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the ID of that HS-SICH in the *HS-SICH ID* IE.]

[FDD – If the *Alternative Format Reporting Indicator* IE is set to "Alternative format is allowed" in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNC may include the *Extended Round Trip Time* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message.]

### 8.3.11.3 Unsuccessful Operation

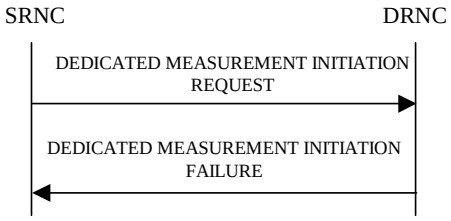



**Figure 21: Dedicated Measurement Initiation procedure, Unsuccessful Operation**

If the requested measurement cannot be initiated for one of the RL/RLS, the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

If the DEDICATED MEASUREMENT INITIATION REQUEST message includes the *Partial Reporting Indicator* IE, the DRNS shall, if partial reporting is supported, separate the unsuccessful measurement initiations from the successful measurement initiations. For the successful measurement initiations on a RL or an RLS, the DRNS shall include the *Successful RL Information* IE or the *Successful RL Set Information* IE for the concerned RL or RLS if the R*eport Characteristics* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message was set to "On Demand". For the unsuccessful measurement initiations, the DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

**Radio Network Layer Causes:**

Measurement not Supported For The Object
Measurement Temporarily not Available

**Miscellaneous Causes:**

Control Processing Overload
HW Failure

### 8.3.11.4 Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the DRNS shall reject the Dedicated Measurement Initiation procedure using the DEDICATED MEASUREMENT INITIATION FAILURE message.

**Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations**

| Dedicated Measurement Type | Report Characteristics Type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| SIR | X | X | X | X | X | X | X | X | |
| SIR Error | X | X | X | X | X | X | X | X | |
| Transmitted Code Power | X | X | X | X | X | X | X | X | |
| RSCP | X | X | X | X | X | X | X | X | |
| Rx Timing Deviation | X | X | X | X | | | X | X | |
| Round Trip Time | X | X | X | X | X | X | X | X | |
| Rx Timing Deviation LCR | X | X | X | X | | | X | X | |
| HS-SICH Reception Quality | X | X | X | X | | | X | X | |
| Angle Of Arrival LCR | X | X | | | | | | | |
| Rx Timing Deviation 7.68Mcps | X | X | X | X | | | X | X | |
| Rx Timing Deviation 3.84Mcps Extended | X | X | X | X | | | X | X | |

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [11] or [14] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNS shall reject the Dedicated Measurement Initiation procedure.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the DRNS shall reject the Dedicated Measurement Initiation procedure, and the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message.

## 8.3.12 Dedicated Measurement Reporting

### 8.3.12.1 General

This procedure is used by the DRNS to report the results of the successfully initiated measurements requested by the SRNS with the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link.

### 8.3.12.2 Successful Operation




**Figure 22: Dedicated Measurement Reporting procedure, Successful Operation**

If the requested measurement reporting criteria are met, the DRNS shall initiate the Dedicated Measurement Reporting procedure. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the DRNC may include dedicated measurement values in the *Dedicated Measurement Value Information* IE for multiple objects in the DEDICATED MEASUREMENT REPORT message.

The *Measurement ID* IE shall be set to the Measurement ID provided by the SRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [23] and [24] or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the Measurement not available shall be reported in the *Dedicated Measurement Value Information* IE in the DEDICATED MEASUREMENT REPORT message, otherwise the DRNC shall include the *Dedicated Measurement Value* IE within the *Dedicated Measurement Value Information* IE. If the DRNC was configured to perform the Measurement Recovery Behavior, the DRNC shall indicate Measurement Available to the SRNC when the achieved measurement accuracy again fullfils the given accuracy requirement (see ref. [23] and [24]) and include the *Measurement Recovery Report Indicator* IE in the DEDICATED MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

If the CFN Reporting Indicator when initiating the measurement with the Dedicated Measurement Initiation procedure was set to "FN Reporting Required", the DRNC shall include the *CFN* IE in the DEDICATED MEASUREMENT REPORT message. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].

[TDD – If the measurement was made on a particular DPCH, the DEDICATED MEASUREMENT REPORT message shall include the DPCH ID of that DPCH in the [1.28Mcps TDD and 3.84Mcps TDD – *DPCH ID* IE] [7.68Mcps TDD – *DPCH ID 7.68Mcps* IE].]

[TDD – If the measurement was made on a particular HS-SICH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the ID of that HS-SICH in the *HS-SICH ID* IE.]

[FDD – If the *Alternative Format Reporting Indicator* IE was set to "Alternative format is allowed" in the DEDICATED MEASUREMENT INITIATION REQUEST message setting up the measurement to be reported, the DRNC may include the *Extended Round Trip Time* IE in the DEDICATED MEASUREMENT REPORT message.]

### 8.3.12.3 Abnormal Conditions

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## 8.3.13 Dedicated Measurement Termination

### 8.3.13.1 General

This procedure is used by the SRNS to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.13.2 Successful Operation




**Figure 23: Dedicated Measurement Termination procedure, Successful Operation**

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall terminate reporting of dedicated measurements corresponding to the received *Measurement ID* IE.

### 8.3.13.3 Abnormal Conditions

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## 8.3.14 Dedicated Measurement Failure

### 8.3.14.1 General

This procedure is used by the DRNS to notify the SRNS that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. When partial reporting is allowed and supported, this procedure shall be used to report that measurement for one or more RL/RLS can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Failure procedure at any time after establishing a Radio Link.

### 8.3.14.2 Successful Operation




**Figure 24: Dedicated Measurement Failure procedure, Successful Operation**

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the DRNC to the SRNC, to inform the SRNC that a previously requested dedicated measurement can no longer be reported. The DRNC has locally terminated the indicated measurement. The DRNC shall include in the DEDICATED MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

The DRNS shall include *Unsuccessful RL Information* IE or the *Unsuccessful RL Set Information* IE for the concerned RL or RLS if partial reporting is allowed and it is supported. The DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

**Miscellaneous Causes:**

- Control Processing Overload
- HW Failure
- O&M Intervention

### 8.3.14.3 Abnormal Conditions

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## 8.3.15 Downlink Power Control [FDD]

### 8.3.15.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more radio links for one UE.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Downlink Power Control procedure may be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated in this DRNS the deletion of the last Radio Link for this UE context, the Downlink Power Control procedure shall not be initiated.

### 8.3.15.2 Successful Operation




**Figure 25: Downlink Power Control procedure, Successful Operation**

The Downlink Power Control procedure is initiated by the SRNC sending a DL POWER CONTROL REQUEST message to the DRNC.

The *Power Adjustment Type* IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "Common". As long as the Power Balancing Adjustment Type of the UE Context is set to "Common", the DRNS shall perform the power adjustment (see below) for all existing and future radio links for the UE Context and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "Individual". The DRNS shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Power per RL. If the Power Balancing Adjustment Type of the UE Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "None" and the DRNS shall suspend on going power adjustments for all radio links for the UE Context.

If the *Inner Loop DL PC Status* IE is present and set to "Active", the DRNS shall activate inner loop DL power control for all radio links for the UE Context. If the *Inner Loop DL PC Status* IE is present and set to "Inactive", the DRNS shall deactivate inner loop DL power control for all radio links for the UE Context according to ref. [10].

**Power Adjustment**

The power balancing adjustment shall be superimposed on the inner loop power control adjustment (see ref. [10]) if activated. The power balancing adjustment shall be such that:

$\sum P_{bal} = (1-r)(P_{ref} + P_{P-CPICH} - P_{init})$ with an accuracy of ±0.5 dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, $P_{ref}$ is the value of the *DL Reference Power* IE, $P_{P\text{-}CPICH}$ is the power used on the primary CPICH, $P_{init}$ is the code power of the last slot of the previous adjustment period and $r$ is given by the *Adjustment Ratio* IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, $P_{init}$ shall be set to the same value as the code power of the slot just before the transmission gap.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE and the DL TX power range set by the DRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

### 8.3.15.3 Abnormal Conditions

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## 8.3.16 Compressed Mode Command [FDD]

### 8.3.16.1 General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the DRNS for one UE-UTRAN connection. This procedure shall use the signalling bearer connection for the relevant UE Context.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.16.2 Successful Operation




**Figure 26: Compressed Mode Command procedure, Successful Operation**

The procedure is initiated by the SRNC sending a COMPRESSED MODE COMMAND message to the DRNC.

Upon receipt of the COMPRESSED MODE COMMAND message from the SRNC and at the CFN indicated in the *CM Configuration Change CFN* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions (if present) shall be started when the indicated *TGCFN* IE elapses. The *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value.

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

If the concerned UE Context is configured to use F-DPCH in the downlink, the DRNS shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration.

### 8.3.16.3 Abnormal Conditions

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## 8.3.17 Downlink Power Timeslot Control [TDD]

### 8.3.17.1 General

The purpose of this procedure is to provide the DRNS with updated DL Timeslot ISCP values to use when deciding the DL TX Power for each timeslot.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Downlink Power Timeslot Control procedure can be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated deletion of the last Radio Link in this DRNS, the Downlink Power Timeslot Control procedure shall not be initiated.

### 8.3.17.2 Successful Operation




**Figure 26A: Downlink Power Timeslot Control procedure, Successful Operation**

The Downlink Power Timeslot Control procedure is initiated by the SRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the DRNC.

Upon receipt of the DL POWER TIMESLOT CONTROL REQUEST message, the DRNS shall use the included [3.84Mcps TDD and 7.68 Mcps TDD – *DL Timeslot ISCP Info* IE] [1.28Mcps TDD – *DL Timeslot ISCP Info LCR* IE] value when deciding the DL TX Power for each timeslot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link in which the interference is low, and increase the DL TX power in those timeslots in which the interference is high, while keeping the total downlink power in the radio link unchanged.

If the *Primary CCPCH RSCP Delta* IE is included, the DRNS shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS shall assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

### 8.3.17.3 Abnormal Conditions

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## 8.3.18 Radio Link Pre-emption

### 8.3.18.1 General

This procedure is started by the DRNS when resources need to be freed.

This procedure shall use the signalling bearer connection for the UE Context associated with the RL to be pre-empted.

The DRNS may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

### 8.3.18.2 Successful Operation

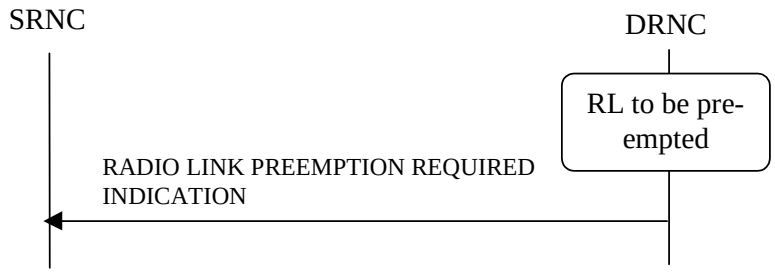



**Figure 26B: Radio Link Pre-emption procedure, Successful Operation**

When DRNC detects that one or more Radio Link(s) should be pre-empted (see Annex A), it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the SRNC. If all Radio Links for a UE Context should be pre-empted, the *RL Information* IE shall not be included in the message. If one or several but not all Radio Link(s) should be pre-empted for an UE Context, the Radio Link(s) that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted, should be deleted by the SRNC.

[FDD – If only the E-DCH traffic on a Radio Link should be pre-empted, the DRNC shall indicate the EDCH MAC-d flows that should be pre-empted by including the *E-DCH MAC-d Flow Specific Information* IE in the RADIO LINK PREEMPTION REQUIRED INDICATION message.]

When only the HS-DSCH traffic on a Radio Link should be pre-empted, the DRNC shall indicate the HS-DSCH MAC-d flow(s) that should be pre-empted by including the *HS-DSCH MAC-d Flow Specific Information* IE in the RADIO LINK PREEMPTION REQUIRED INDICATION message.

### 8.3.18.3 Abnormal Conditions

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## 8.3.19 Radio Link Congestion

### 8.3.19.1 General

This procedure is started by the DRNS when resource congestion is detected and the rate of one or more DCHs, corresponding to one or more radio links, is preferred to be limited in the UL and/or DL. This procedure is also used by the DRNC to indicate to the SRNC any change of the UL/DL resource congestion situation, affecting these radio links. This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Congestion procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.19.2 Successful Operation




**Figure 26C: Radio Link Congestion procedure, Successful Operation**

**Start of an UL/DL Resource Congestion Situation**

When the DRNC detects the start of a UL/DL resource congestion situation and prefers the rate of one or more DCHs for one or more Radio Link(s) to be limited below the maximum rate currently configured in the UL/DL TFS, it shall send the RADIO LINK CONGESTION INDICATION message to the SRNC. The DRNC shall indicate the cause of the congestion in the *Congestion Cause* IE and shall indicate all the Radio Links for which the rate of a DCH needs to be reduced. For each DCH within the RL with UL congestion, the DRNC shall indicate the desired maximum UL data rate with the *Allowed UL Rate* IE in the *Allowed Rate Information* IE. For each DCH within the RL with DL congestion, the DRNC shall indicate the desired maximum DL data rate with the *Allowed DL Rate* IE in the *Allowed Rate Information* IE.

[FDD – For each E-DCH MAC-d flow within the RL with UL congestion, the DRNC shall indicate all the MAC-d flows for which the rate cannot be fullfilled.]

When receiving the RADIO LINK CONGESTION INDICATION message the SRNC should reduce the rate in accordance with the *Congestion Cause* IE and the indicated *Allowed DL Rate* IE and/or *Allowed UL Rate* IE for a DCH.

[FDD – If the RADIO LINK CONGESTION INDICATION message includes the *DCH Indicator For E-DCH-HSDPA Operation* IE, then the SRNS shall ignore the *DCH Rate Information* IE in the RADIO LINK CONGESTION INDICATION message.]

**Change of UL/DL Resource Congestion Situation**

The DRNC shall indicate any change of the UL/DL resource congestion situation by sending the RADIO LINK CONGESTION INDICATION message in which the new allowed rate(s) of the DCHs are indicated by the *Allowed Rate Information* IE. In the case that for at least one DCH the new allowed rate is lower than the previously indicated allowed rate for that DCH, the *Congestion Cause* IE, indicating the cause of the congestion, shall also be included.

When receiving a RADIO LINK CONGESTION INDICATION message indicating a further rate decrease on any DCH(s) on any RL, the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for the DCH(s).

**End of UL/DL Resource Congestion Situation**

The end of an UL resource congestion situation, affecting a specific RL, shall be indicated by including the TF corresponding to the highest data rate in the *Allowed UL Rate* IE in the *Allowed Rate Information* IE for the concerned RL. The end of a DL resource congestion situation, affecting a specific RL, shall be indicated by including the TF with the highest data rate in the *Allowed DL Rate* IE in the *Allowed Rate Information* IE for the concerned RL.

### 8.3.19.3 Abnormal Conditions

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## 8.3.20 Radio Link Activation

### 8.3.20.1 General

This procedure is used to activate or de-activate the DL transmission on the Uu interface regarding selected RLs.

### 8.3.20.2 Successful Operation




**Figure 26D: Radio Link Activation procedure**

This procedure is initiated by sending the RADIO LINK ACTIVATION COMMAND message from the SRNC to the DRNC. This procedure shall use the signalling bearer connection for the relevant UE Context.

Upon receipt, the DRNS shall for each concerned RL:

- if the *Delayed Activation Update* IE indicates "Activate":
  - if the *Activation Type* IE equals "Unsynchronised":
    - [FDD – start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4].]
    - [TDD – start transmission on the new RL immediately as specified in [4].]
  - if the *Activation Type* IE equals "Synchronised":
    - [FDD – start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4], however never before the CFN indicated in the *Activation CFN* IE.]
    - [TDD – start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [4].]
  - [FDD – the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH or on the F-DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see 8.3.7).]

- [TDD – the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

- [FDD – if the *Propagation Delay* IE and optionally the *Extended Propagation Delay* IE are included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]

- [FDD – if the *First RLS Indicator* IE is included, it indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the DRNS to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

- if the *Delayed Activation Update* IE indicates "Deactivate":

  - stop DL transmission immediately if the *Deactivation Type* IE equals "Unsynchronised", or at the CFN indicated by the *Deactivation CFN* IE if the *Deactivation Type* IE equals "Synchronised".

### 8.3.20.3 Abnormal Conditions

[FDD – If the *Delayed Activation Update* IE is included in the RADIO LINK ACTIVATION COMMAND message, it indicates "Activate" and the *First RLS Indicator* IE is not included, the DRNC shall initiate the ERROR INDICATION procedure.]

## 8.3.21 Radio Link Parameter Update

### 8.3.21.1 General

The Radio Link Parameter Update procedure is executed by the DRNS to update parameters related to HS-DSCH on a radio link for a UE-UTRAN connection or to update phase reference on a list of the radio links.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Parameter Update procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.21.2 Successful Operation




**Figure 26E: Radio Link Parameter Update Indication, Successful Operation**

The Radio Link Parameter Update procedure is initiated by the DRNS by sending the RADIO LINK PARAMETER UPDATE INDICATION message to the SRNC.

**HS-DSCH related Parameter(s) Updating:**

If RADIO LINK PARAMETER UPDATE INDICATION message is used to update the parameters related to HS-DSCH, it contains suggested value(s) of the HS-DSCH related parameter(s) that should be reconfigured on the radio link.

If the DRNS needs to update HS-DSCH related parameters, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including [FDD – *HS-DSCH FDD Update Information* IE] [TDD – *HS-DSCH TDD Update Information* IE].

If the DRNS needs to allocate new HS-SCCH Codes, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-SCCH Code Change Indicator* IE.

[FDD – If the DRNS needs to allocate new HS-PDSCH Codes, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-PDSCH Code Change Indicator* IE.]

[FDD – If the DRNS needs to update the CQI Feedback Cycle k, CQI Repetition Factor, ACK-NACK Repetition Factor, CQI Power Offset, ACK Power Offset and/or NACK Power Offset, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *CQI Feedback Cycle k* IE, *CQI Repetition Factor* IE, *ACK-NACK Repetition Factor* IE, *CQI Power Offset* IE, *ACK Power Offset* IE and/or *NACK Power Offset* IE.]

[TDD – If the DRNS needs to update the TDD ACK-NACK Power Offset the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *TDD ACK-NACK Power Offset* IE.]

**[FDD – Secondary Serving HS-DSCH related Parameter(s) Updating:]**

[FDD – If RADIO LINK PARAMETER UPDATE INDICATION message is used to update the parameters related to secondary serving HS-DSCH, it contains suggested value(s) of the secondary serving HS-DSCH related parameter(s) that should be reconfigured on the radio link.]

[FDD – If the DRNS needs to update secondary serving HS-DSCH related parameters, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message and include the *Additional HS Cell Information RL Param Upd* IE.]

- [FDD – If the DRNS needs to allocate new secondary serving HS-SCCH Codes, the DRNS shall include the *HS-SCCH Code Change Indicator* IE in the *HS-DSCH FDD Secondary Serving Update Information* IE.]

**[FDD – Phase Reference Handling:]**

[FDD – If DRNS needs to update phase reference for the channel estimation for one or several Radio Links, the DRNC shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *Phase Reference Update Information* IE for the concerned RL(s).]

**[FDD – E-DCH:]**

[FDD – If DRNS needs to update E-DCH related parameters, the DRNC shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *E-DCH FDD Update Information* IE.]

[FDD – If the DRNS needs to update the HARQ process allocation for non-scheduled transmission and/or HARQ process allocation for scheduled Transmission, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE for the concerned MAC-d Flows and/or *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE.]

[FDD – If the DRNS needs to allocate new E-AGCH Channelisation Code, new E-RGCH/E-HICH Channelisation Code, new E-RGCH Signature Sequence and/or new E-HICH Signature Sequence, the DRNC shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *E-DCH DL Control Channel Change Information* IE.]

[FDD – If the DRNS needs to update Additional E-DCH related parameters, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *Additional E-DCH Cell Information RL Param Upd* IE.]

- [FDD – If the DRNS needs to update the HARQ process allocation for scheduled Transmission, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* .]

- [FDD – If the DRNS needs to allocate new E-AGCH Channelisation Code, new E-RGCH/E-HICH Channelisation Code, new E-RGCH Signature Sequence and/or new E-HICH Signature Sequence, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *Additional E-DCH DL Control Channel Change Information* IE.]

### 8.3.21.3 Abnormal Conditions

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## 8.3.22 UE Measurement Initiation [TDD]

### 8.3.22.1 General

This procedure is used by a DRNC to request the initiation of UE measurements by the SRNC.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The UE Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.22.2 Successful Operation

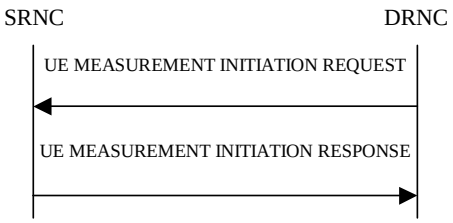



**Figure 26F: UE Measurement Initiation procedure, Successful Operation**

The procedure is initiated with a UE MEASUREMENT INITIATION REQUEST message sent from the DRNC to the SRNC.

Upon receipt the SRNC shall, provided that it determines that the measurement can be performed by the UE, initiate and forward the requested UE measurement according to the parameters given in the UE MEASUREMENT INITIATION REQUEST message. If the UE MEASUREMENT INITIATION REQUEST message includes the *UE Measurement Parameter Modification Allowed* IE with a value of "Parameter Modification Allowed" the *UE Measurement Report Characteristics* IE and the *Measurement Filter Coefficient* IE, if it is included, are suggested values, otherwise the values of these parameters must be fulfilled.

[3.84 Mcps TDD – If the *UE Measurement Timeslot Information HCR* IE is provided, the measurement request shall apply for the requested timeslot(s) individually. If the *UE Measurement Timeslot Information HCR* IE are not provided the SRNC may choose the timeslots for measurements that apply to individual timeslots.]

[1.28 Mcps TDD – If the *UE Measurement Timeslot Information LCR* IE is provided, the measurement request shall apply for the requested timeslot(s) individually. If the *UE Measurement Timeslot Information LCR* IE are not provided the SRNC may choose the timeslots for measurements that apply to individual timeslots.]

[7.68 Mcps TDD – If the *UE Measurement Timeslot Information 7.68 Mcps* IE is provided, the measurement request shall apply for the requested timeslot(s) individually. If the *UE Measurement Timeslot Information 7.68 Mcps* IE are not provided the SRNC may choose the timeslots for measurements that apply to individual timeslots.]

If the UE MEASUREMENT INITIATION REQUEST message includes the *Allowed Queuing Time* IE the SRNC may queue the request for a time period not to exceed the value of the *Allowed Queuing Time* IE before starting to execute the request.

The SRNC is required to perform reporting for a UE measurement object, in accordance with the conditions provided in the UE MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no UE measurement object(s) for which a measurement is defined exists any more, the SRNC shall terminate the measurement locally without reporting this to the DRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event 1h, Event 1i,Event 6a, Event 6b, Event 6c, or Event 6d, the SRNC shall initiate the UE Measurement Reporting procedure immediately, and then continue with the measurements as specified in the UE MEASUREMENT INITIATION REQUEST message

At the start of a periodic measurement, the SRNC shall not initiate UE Measurement Reporting procedure until the next measurement is received from the UE, even if measurement data is available.

**Report characteristics**

The *UE Measurement Report Characteristics* IE indicates how the reporting of the dedicated measurement shall be performed. See [16].

**Higher layer filtering**

The *Measurement Filter Coefficient* IE indicates how filtering of the dedicated measurement values shall be performed before measurement event evaluation and reporting. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering). The use of the *Measurement Filter Coefficient* IE is shown in [16].

**Response message**

If the SRNC was able to initiate the measurement requested by the DRNC it shall respond with the UE MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the UE MEASUREMENT INITIATION REQUEST message.

If the DRNC allowed parameter modification and the SRNC modified the *Measurement Filter Coefficient* IE the SRNC shall include the modified value in the UE MEASUREMENT INTIATION RESPONSE message.

If the DRNC allowed parameter modification and the SRNC modified the *UE Measurement Report Characteristics* IE the SRNC shall include the modified value in the UE MEASUREMENT INTIATION RESPONSE message.

### 8.3.22.3 Unsuccessful Operation

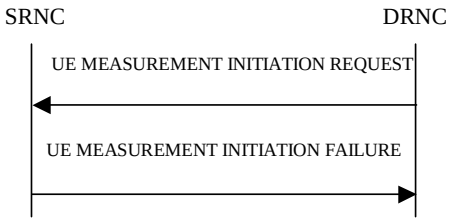



**Figure 26G: UE Measurement Initiation procedure, Unsuccessful Operation**

If the requested measurement cannot be initiated, the SRNC shall send a UE MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the UE MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are:

**Radio Network Layer Causes:**

Measurement not Supported For The Object
Measurement Temporarily not Available
Measurement Repetition Rate not Compatible with Current Measurements
UE not Capable to Implement Measurement

**Miscellaneous Causes:**

Control Processing Overload
HW Failure

### 8.3.22.4 Abnormal Conditions

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## 8.3.23 UE Measurement Reporting [TDD]

### 8.3.23.1 General

This procedure is used by the SRNC to report the results of the successfully initiated measurements requested by the DRNC with the UE Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The SRNC may initiate the UE Measurement Reporting procedure at any time after establishing a Radio Link.

### 8.3.23.2 Successful Operation




**Figure 26H: UE Measurement Reporting procedure, Successful Operation**

If the requested measurement reporting criteria was met in the UE and reported to the SRNC, the SRNC shall initiate the UE Measurement Reporting procedure. The *Measurement ID* IE shall be set to the Measurement ID provided by the DRNC when initiating the measurement with the UE Measurement Initiation procedure.

If Primary CCPCH RSCP is being reported:

- If the *Primary CCPCH RSCP Delta* IE is included, the DRNC shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE.
- If the *Primary CCPCH RSCP Delta* IE is not included the DRNC shall assume that the reported value is in the non negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [24], the Measurement not available shall be reported in the *UE Measurement Value Information* IE in the UE MEASUREMENT REPORT message, otherwise the SRNC shall include the *UE Measurement Value* IE within the *UE Measurement Value Information* IE.

### 8.3.23.3 Abnormal Conditions

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## 8.3.24 UE Measurement Termination [TDD]

### 8.3.24.1 General

This procedure is used by the DRNC to terminate a measurement previously requested by the UE Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The UE Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.24.2 Successful Operation




**Figure 26I: UE Measurement Termination procedure, Successful Operation**

This procedure is initiated with a UE MEASUREMENT TERMINATION REQUEST message, sent from the DRNC to the SRNC.

Upon receipt, the SRNC shall terminate forwarding of UE measurements corresponding to the received *Measurement ID* IE.

### 8.3.24.3 Abnormal Conditions

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## 8.3.25 UE Measurement Failure [TDD]

### 8.3.25.1 General

This procedure is used by the SRNC to notify the DRNC that a measurement previously requested by the UE Measurement Initiation procedure can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The SRNC may initiate the UE Measurement Failure procedure at any time after establishing a Radio Link.

### 8.3.26.2 Successful Operation

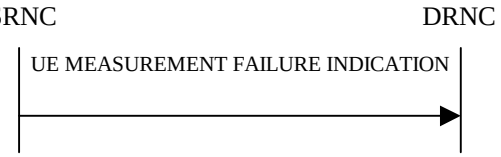



**Figure 26J: UE Measurement Failure procedure, Successful Operation**

This procedure is initiated with a UE MEASUREMENT FAILURE INDICATION message, sent from the SRNC to the DRNC, to inform the DRNC that a previously requested UE measurement can no longer be reported. The SRNC has locally terminated the forwarding of the indicated measurement. The SRNC shall include in the UE MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

Typical cause values are:

**Miscellaneous Causes:**

- Control Processing Overload
- HW Failure
- O&M Intervention

### 8.3.25.3 Abnormal Conditions

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## 8.3.26 Iur Invoke Trace

### 8.3.26.1 General

The purpose of the Iur Invoke Trace procedure is to inform the DRNC that it should begin a Trace Session for a given UE Context according to the Trace Parameters indicated by the SRNC. This procedure is used for Trace Parameter Propagation in the Signalling Based Activation mechanism as defined in [48] and [49].

This procedure shall use the signalling bearer mode specified below.

### 8.3.26.2 Successful Operation




**Figure 26K: Iur Invoke Trace procedure, Successful Operation**

The Iur Invoke Trace procedure is invoked by the SRNC by sending an IUR INVOKE TRACE message to the DRNC.

When the concerned UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE Context in the DRNC.

Upon receiving the IUR INVOKE TRACE message, the DRNC should begin a Trace Recording Session according to the parameters indicated in the IUR INVOKE TRACE message.

If the *List Of Interfaces To Trace* IE is included in the IUR INVOKE TRACE message, the DRNC shall trace, for the concerned UE Context, the interfaces indicated by the *List Of Interfaces To Trace* IE. Otherwise, the DRNC shall trace, for the concerned UE Context, the Iur and Iub interfaces.

The values of the *UE Identity* IE, *Trace Reference* IE and *Trace Recording Session Reference* IE are used to tag the Trace Record to allow simpler construction of the total record by the entity which combines Trace Records.

If the DRNC does not support the requested value “Minimum” or “Medium” of the *Trace Depth* IE, the DRNC should begin a Trace Recording Session with maximum Trace Depth.

The DRNC may not start a Trace Recording Session if there are insufficient resources available within the DRNC.

### 8.3.26.3 Abnormal Conditions

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## 8.3.27 Iur Deactivate Trace

### 8.3.27.1 General

The purpose of the Iur Deactivate Trace procedure is to inform the DRNC that it should stop a Trace Session for the concerned UE Context and the indicated Trace Reference. This procedure is used for the Signalling Based Deactivation mechanism as defined in [48] and [49].

This procedure shall use the signalling bearer mode specified below.

### 8.3.27.2 Successful Operation




**Figure 26L: Iur Invoke Trace procedure, Successful Operation**

The Iur Deactivate Trace procedure is invoked by the SRNC by sending an IUR DEACTIVATE TRACE message to the DRNC.

When the concerned UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE Context in the DRNC.

Upon receiving the IUR DEACTIVATE TRACE message, the DRNC shall stop for the concerned UE Context any ongoing Trace Recording Session for the Trace Session identified by the *Trace Reference* IE.

### 8.3.27.3 Abnormal Conditions

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## 8.3.28 Enhanced Relocation

### 8.3.28.1 General

This procedure is used for relocation of SRNS in case the SRNC and DRNC connect to same CN node.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure in case the relevant UE Context does not exist for the UE.

This procedure shall use the signalling bearer connection for the relevant UE Context in the UE Context exists. The Enhanced Relocation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

### 8.3.28.2 Successful Operation

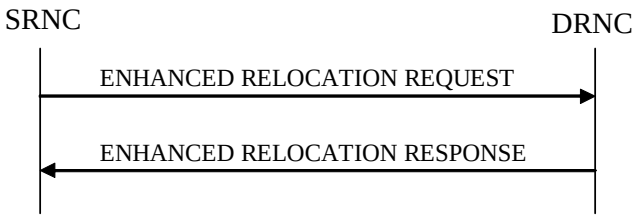



**Figure 26M: Enhanced Relocation procedure: Successful Operation**

The SRNC initiates the procedure by sending an ENHANCED RELOCATION REQUEST message. When the SRNC sends the ENHANCED RELOCATION REQUEST message, it shall start the timer $T_{RELOCprep.}$ The ENHANCED RELOCATION REQUEST message shall contain the *Cause* IE with an appropriate value e.g.: “Time critical Relocation”, “Resource optimisation relocation”, “Relocation desirable for radio reasons” , “Directed Retry”, “Reduce Load in Serving Cell”, “No Iu CS UP relocation”.

If the ENHANCED RELOCATION REQUEST message includes SRNC-ID, the DRNC shall create a UE Context for this UE, allocate a D-RNTI for the UE Context.

### 8.3.28.3 Unsuccessful Operation

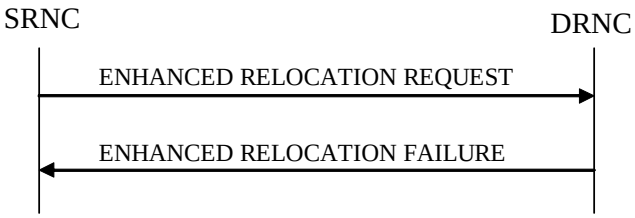



**Figure 26N: Enhanced Relocation procedure: Unsuccessful Operation**

If the DRNC is not able to accept any of the RABs or a failure occurs during the procedure, the DRNC shall send the ENHANCED RELOCATION FAILURE message to the SRNC. The message shall contain the *Cause* IE with an appropriate value.

**Interactions with Enhanced Relocation Cancel procedure:**

If there is no response from the DRNC to the ENHANCED RELOCATION REQUEST message before timer $T_{RELOCprep}$ expires in the DRNC, the SRNC should cancel the Enhanced Relocation procedure towards the DRNC by initiating the Enhanced Relocation Cancel procedure with the appropriate value for the *Cause* IE, e.g. "$T_{RELOCprep}$ expiry". The SRNC shall ignore any ENHANCED RELOCATION RESPONSE or ENHANCED RELOCATION FAILURE message received after the initiation of the Enhanced Relocation Cancel procedure and remove any reference and release any resources related to the concerned UE Context.

### 8.3.28.4 Abnormal Conditions

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## 8.3.29 Enhanced Relocation Cancel

### 8.3.29.1 General

This procedure is used to cancel an ongoing enhanced relocation or an already prepared relocation.

This procedure shall use the signalling bearer connection for the relevant UE Context.

### 8.3.29.2 Successful Operation




**Figure 26O: Enhanced Relocation Cancel procedure: Successful Operation**

The SRNC initiates the procedure by sending the ENHANCED RELOCATION CANCEL message to the DRNC. The SRNC shall indicate the reason for cancelling the relocation by means of an appropriate cause value. Typical cause values are " $T_{RELOCprep}$Expiry", "Relocation Cancelled", "Traffic Load In The Target Cell Higher Than In The Source Cell".

At the reception of the ENHANCED RELOCATION CANCEL message, the DRNC shall remove any reference to, and release any resources previously reserved to the concerned UE context.

### 8.3.29.3 Unsuccessful Operation

Not applicable.

### 8.3.29.4 Abnormal Conditions

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## 8.3.30 Enhanced Relocation Signalling Transfer

### 8.3.30.1 General

The procedure is used by the SRNC to transfer DL L3 information to DRNC during enhanced relocation.

This procedure shall use the signalling bearer connection for the relevant UE Context.

### 8.3.30.2 Successful Operation

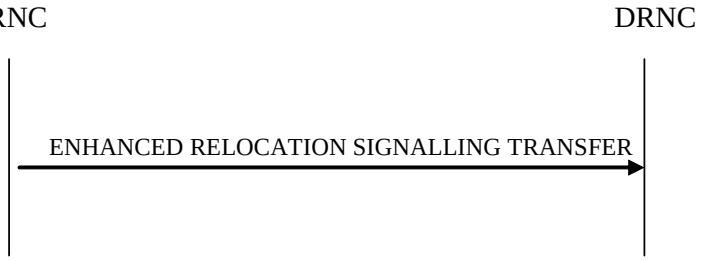



**Figure 26P: Enhanced Relocation Signalling Transfer procedure, Successful Operation**

The procedure consists of the ENHANCED RELOCATION SIGNALLING TRANSFER message sent by the SRNC to the DRNC.

The ENHANCED RELOCATION SIGNALLING TRANSFER message contains the L3 Information and after the receipt of the message, the DRNC shall send the L3 Information on the DCCH.

### 8.3.30.3 Abnormal Conditions

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## 8.3.31 Enhanced Relocation Release

### 8.3.31.1 General

The procedure is used by the DRNC to signal to the SRNC that resource for CN domain is released due to failure of the enhanced relocation.

This procedure shall use the signalling bearer connection for the relevant UE Context.

### 8.3.31.2 Successful Operation

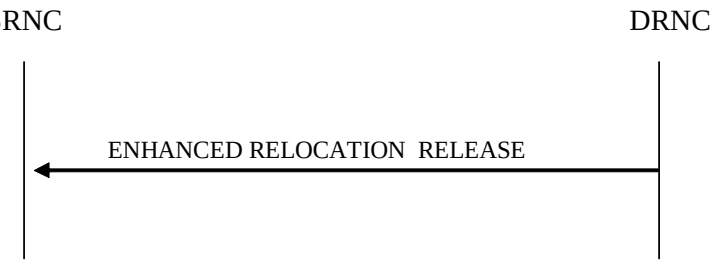



**Figure 26Q: Enhanced Relocation Signalling Transfer procedure, Successful Operation**

The procedure consists of the ENHANCED RELOCATION RELEASE message sent by the DRNC to the SRNC.

Upon reception of the ENHANCD RELOCATION RELEASE message, the SRNC shall release related resources associated to indicated CN domain(s) by the *Released CN Domain* IE in the message for the UE context.

### 8.3.31.3 Abnormal Conditions

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## 8.3.32 Secondary UL Frequency Reporting [FDD]

### 8.3.32.1 General

The purpose of this procedure is to inform the DRNS about the activation state of the secondary UL frequency of the UE in Dual Cell E-DCH operation.

This procedure shall use the signalling bearer connection for the relevant UE Context.

### 8.3.32.2 Successful Operation

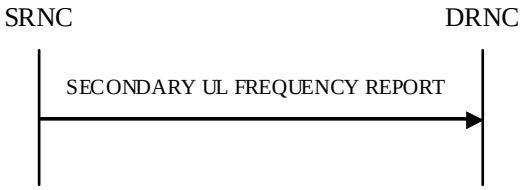



**Figure 26R: Secondary UL Frequency Reporting procedure**

The Secondary UL Frequency Reporting procedure is initiated by sending the SECONDARY UL FREQUENCY REPORT message from the SRNC to the DRNC.

The *Activation Information* IE defines the local activation state of the Secondary uplink frequency of the UE in Dual Cell E-DCH operation.

- If the value of *Uu Activation State* IE is “Activated”: the DRNS shall if supported use this information for resource allocation operation of the secondary E-DCH radio link(s), F-DPCH transmission and DPCCH detection.

- If the value of *Uu Activation State* IE is “De-Activated”: the DRNS shall if supported use this information for release of the related resources for the secondary E-DCH radio link(s), cease of F-DPCH transmission and DPCCH detection.

### 8.3.32.3 Abnormal Conditions

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## 8.3.33 Secondary UL Frequency Update [FDD]

### 8.3.33.1 General

The purpose of this procedure is to inform the SRNC about updates to activation state of the secondary UL frequency of the UE in Dual Cell E-DCH operation .

This procedure shall use the signalling bearer connection for the relevant UE context.

### 8.3.33.2 Successful Operation

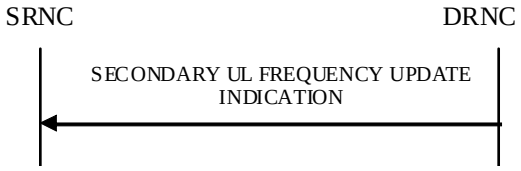



**Figure 26S: Secondary UL Frequency Update procedure**

The Secondary UL Frequency Update procedure is initiated by the DRNS by sending the SECONDARY UL FREQUENCY UPDATE INDICATION message to the SRNC.

If the DRNS needs to update the local activation state of the Secondary uplink frequency of the UE in Dual Cell E-DCH operation, the DRNS shall send SECONDARY UL FREQUENCY UPDATE INDICATION message and include the *Activation Information* IE.

### 8.3.33.3 Abnormal Conditions

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## 8.4 Common Transport Channel Procedures

### 8.4.1 Common Transport Channel Resources Initialisation

#### 8.4.1.1 General

The Common Transport Channel Resources Initialisation procedure is used by the SRNC for the initialisation of the Common Transport Channel user plane towards the DRNC and/or for the initialisation of the Common Transport Channel resources in the DRNC to be used by a UE.

This procedure shall use the connectionless mode of the signalling bearer.

#### 8.4.1.2 Successful Operation

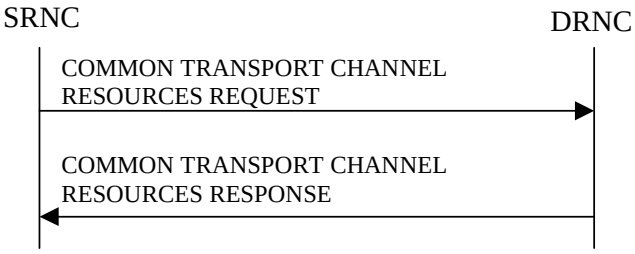



**Figure 27: Common Transport Channel Resources Initialisation procedure, Successful Operation**

The SRNC initiates the procedure by sending the message COMMON TRANSPORT CHANNEL RESOURCES REQUEST message to the DRNC.

If the value of the *Transport Bearer Request Indicator* IE is set to “Bearer Requested”, the DRNC shall store the received *Transport Bearer ID* IE. The DRNC may use the *Transport Layer Address* and *Binding ID* IEs included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message received from the SRNC when establishing a transport bearer for the common transport channel. In addition, the DRNC shall include its own *Binding ID* IE and *Transport Layer Address* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNC to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related common transport channels.

If the value of the *Transport Bearer Request Indicator* IE is set to" Bearer not Requested", the DRNC shall use the transport bearer indicated by the *Transport Bearer ID* IE.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall allocate a C-RNTI for the indicated cell and include the *C-RNTI* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell indicated by the *C-ID* IE and the corresponding *C-ID* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If the *C-ID* IE is not included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell where the UE is located and the corresponding *C-ID* IE. The DRNC shall include the *FACH Scheduling Priority* IE and *FACH Initial Window Size* IE in the *FACH Flow Control Information* IE of the *FACH Info for UE Selected S-CCPCH* IE for each priority class that the DRNC has determined shall be used. The DRNC may include several *MAC-c/sh SDU Length* IEs for each priority class.

If the DRNS has any RACH and/or FACH [FDD – and/or HS-DSCH] [1.28Mcps TDD – and/or HS-DSCH] resources previously allocated for the UE in another cell than the cell in which resources are currently being allocated, the DRNS shall release the previously allocated RACH and/or FACH resources [FDD – and/or HS-DSCH] [1.28Mcps TDD – and/or HS-DSCH].

If the DRNS has successfully reserved the required resources, the DRNC shall respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *Permanent NAS UE Identity* IE is present in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNS shall store the information for the considered UE Context for the lifetime of the UE Context.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can reserve resources on a common transport channel in this cell or not.

If the *MBMS Bearer Service List* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall, if supported, perform the UE Linking as specified in [50], section 5.1.6. If an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in the cell identified by the *C-ID* IE, the DRNC shall include in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE for each of these active MBMS bearer services in the COMMON TRANPORT CHANNEL RESOURCES RESPONSE message.

[FDD – If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes an *Enhanced FACH Support Indicator* IE, the DRNC may include the *Enhanced FACH Information Response* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If a HS-DSCH RNTI was not previously allocated to the UE or a new HS-DSCH RNTI is allocated to the UE, the DRNC shall include the *HS-DSCH-RNTI* IE in the *Enhanced FACH Information Response* IE. And if Enhanced PCH operation is activated in the cell indicated by the *C-ID* IE, the DRNC shall include the *Priority Queue Information for Enhanced PCH* IE in the *Enhanced FACH Information Response* IE.]

[1.28Mcps TDD – If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes an *Enhanced FACH Support Indicator* IE, the DRNC may include the *Enhanced FACH Information Response* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If a HS-DSCH RNTI was not previously allocated to the UE or a new HS-DSCH RNTI is allocated to the UE, the DRNC shall include the *HS-DSCH-RNTI* IE in the *Enhanced FACH Information Response* IE. And if Enhanced PCH operation is activated in the cell indicated by the *C-ID* IE, the DRNC shall include the *Priority Queue Information for Enhanced PCH* IE in the *Enhanced FACH Information Response* IE.]

[FDD – If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes an *Common E-DCH Support Indicator* IE, the DRNC may include the *Common E-DCH MAC-d Flow Specific Information* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If the E-DCH MAC-d Flow Multiplexing List for a Common E-DCH MAC-d Flow is configured in DRNC, the DRNC shall include the *E-DCH MAC-d Flow Multiplexing List* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes the *C-ID* IE and the *Common E-*

*DCH Support Indicator* IE, the DRNC may include the *E-RNTI* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.]

[1.28Mcps TDD – If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes a *Enhanced FACH Support Indicator* IE, the DRNC may include the *Common E-DCH MAC-d Flow Specific Information LCR* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.]

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes an *HS-DSCH physical layer category* IE, the DRNC may store the information for the considered UE Context for the lifetime of the UE Context.

[FDD – If the COMMON TRANSPORT CHANNEL RESOURES REQUEST message includes an *UE with enhanced HS-SCCH support indicator* IE, the DRNC may store the information for the considered UE Context for the lifetime of the UE context.]

### 8.4.1.3 Unsuccessful Operation

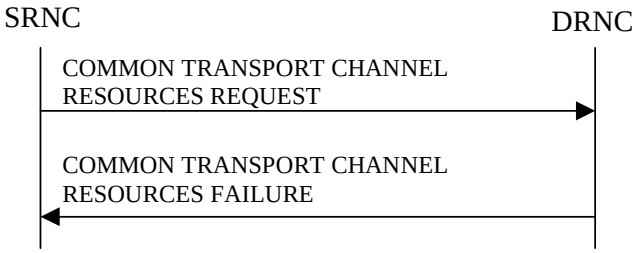



**Figure 28: Common Transport Channel Resources Initialisation procedure, Unsuccessful Operation**

If the *Transport Bearer Request Indicator* IE is set to "Bearer Requested" and the DRNC is not able to provide a Transport Bearer, the DRNC shall reject the procedure and respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including the reason for the failure in the *Cause* IE.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available for the considered UE Context, the DRNC shall reject the procedure and send the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including the reason for the failure in the *Cause* IE.

Typical cause values are:

**Radio Network Layer Causes:**

- Common Transport Channel Type not Supported;
- Cell reserved for operator use.

**Transport Layer Causes:**

- Transport Resource Unavailable.

### 8.4.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport channel intended to be established, the DRNC shall reject the procedure using the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message.

If ALCAP is not used, if the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains the *Transport Bearer Request Indicator* IE set to "Bearer Requested" but does not contain the *Transport Layer Address* IE and the *Binding ID* IE, the DRNC shall reject the procedure using the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message.

## 8.4.2 Common Transport Channel Resources Release

### 8.4.2.1 General

This procedure is used by the SRNC to request release of Common Transport Channel Resources for a given UE in the DRNS. The SRNC uses this procedure either to release the UE Context from the DRNC (and thus both the D-RNTI and the C-RNTI) or to release only the C-RNTI.

This procedure shall use the connectionless mode of the signalling bearer.

### 8.4.2.2 Successful Operation




**Figure 29: Common Transport Channel Resources Release procedure, Successful Operation**

The SRNC initiates the Common Transport Channel Resources Release procedure by sending the COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST message to the DRNC. Upon receipt of the message the DRNC shall release the UE Context identified by the D-RNTI and all its related RACH and/or FACH resources, unless the UE is using dedicated resources (DCH, [TDD – USCH and/or DSCH]) in the DRNS in which case the DRNC shall release only the C-RNTI and all its related RACH and/or FACH [FDD – and/or HS-DSCH] [1.28Mcps TDD – and/or HS-DSCH] resources allocated for the UE.

### 8.4.2.3 Abnormal Conditions

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# 8.5 Global Procedures

## 8.5.1 Error Indication

### 8.5.1.1 General

The Error Indication procedure is initiated by a node to report detected errors in a received message, provided they cannot be reported by an appropriate response message.

This procedure shall use the signalling bearer mode specified below.

### 8.5.1.2 Successful Operation

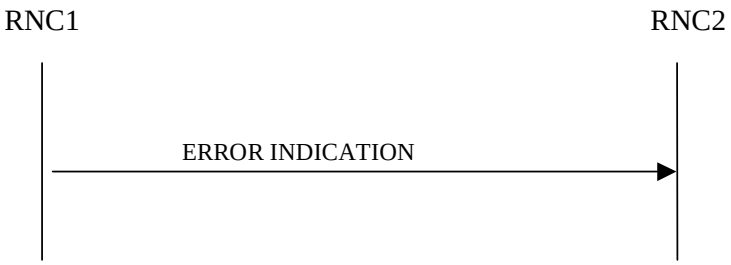



**Figure 30: Error Indication procedure, Successful Operation**

When the conditions defined in clause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node. This message shall use the same mode of the signalling bearer and the same signalling bearer connection (if connection oriented) as the message that triggers the procedure.

When the ERROR INDICATION message is sent from a DRNC to an SRNC using connectionless mode of the signalling bearer, the *S-RNTI* IE shall be included in the message if the UE Context addressed by the *D-RNTI* IE which was received in the message triggering the Error Indication procedure exists. When the ERROR INDICATION message is sent from an SRNC to a DRNC using connectionless mode of the signalling bearer, the *D-RNTI* IE shall be included in the message if available.

When a message using connectionless mode of the signalling bearer is received in the DRNC and there is no UE Context in the DRNC as indicated by the *D-RNTI* IE, the DRNC shall include the D-RNTI from the received message in the *D-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

When a message using connectionless mode of the signalling bearer is received in the SRNC and there is no UE in the SRNC as indicated by the *S-RNTI* IE, the SRNC shall include the S-RNTI from the received message in the *S-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause* IE, or the *Criticality Diagnostics* IE, or both the *Cause* IE and the *Criticality Diagnostics* IE to indicate the reason for the error indication.

Typical cause values for the ERROR INDICATION message are:

**Protocol Causes:**

- Transfer Syntax Error
- Abstract Syntax Error (Reject)
- Abstract Syntax Error (Ignore and Notify)
- Message not Compatible with Receiver State
- Unspecified

#### 8.5.1.2.1 Successful Operation for Iur-g

The $RNC_1$/$BSS_1$ and $RNC_2$/$BSS_2$ shall use the error indication procedure as specified in section 8.5.1.2.

### 8.5.1.3 Abnormal Conditions

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## 8.5.2 Common Measurement Initiation

### 8.5.2.1 General

This procedure is used by an RNC to request the initiation of measurements of common resources to another RNC. The requesting RNC is referred to as $RNC_1$ and the RNC to which the request is sent is referred to as $RNC_2$.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

### 8.5.2.2 Successful Operation

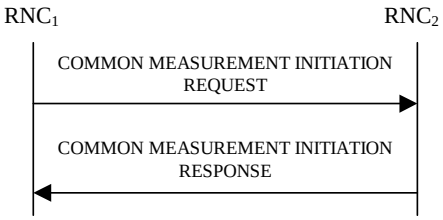



**Figure 30A: Common Measurement Initiation procedure, Successful Operation**

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the $RNC_1$ to the $RNC_2$.

Upon receipt, the $RNC_2$ shall initiate the requested measurement according to the parameters given in the request.

Unless specified below, the meaning of the parameters are given in other specifications.

[TDD – If the [3.84 Mcps TDD and 7.68 Mcps TDD – *Time Slot* IE] [1.28 Mcps – *Time Slot LCR* IE] is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the requested time slot individually.]

**Common measurement type**

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then:

- The $RNC_2$ shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by the *Reference Cell Identifier* IE and the neighbouring cells identified by the *UTRAN Cell Identifier* IE (*UC-ID*) in the *Neighbouring Cell Measurement Information* IE.

- [3.84 Mcps TDD – The $RNC_2$ shall perform the measurement using the time slot specified in the *Time Slot* IE in the *Neighbouring TDD Cell Measurement Information* IE and using the midamble shift and burst type specified in the *Midamble Shift And Burst Type* IE in the *Neighbouring TDD Cell Measurement Information* IE. If *Time Slot* IE and *Midamble Shift And Burst Type* IE are not available in the *Neighbouring TDD Cell Measurement Information* IE, the $RNC_2$ may use any appropriate time slots, midamble shifts and burst types to make the measurement.]

- [7.68 Mcps TDD – The $RNC_2$ shall perform the measurement using the time slot specified in the *Time Slot* IE in the *Neighbouring TDD Cell Measurement Information 7.68 Mcps* IE and using the midamble shift and burst type specified in the *Midamble Shift And Burst Type 7.68 Mcps* IE in the *Neighbouring TDD Cell Measurement Information 7.68 Mcps* IE. If *Time Slot* IE and *Midamble Shift And Burst Type 7.68 Mcps* IE are not available in the *Neighbouring TDD Cell Measurement Information 7.68 Mcps* IE, the $RNC_2$ may use any appropriate time slots, midamble shifts and burst types to make the measurement.]

If the *Common Measurement Type* IE is set to "load", the $RNC_2$ shall initiate measurements of uplink and downlink load on the measured object identified by the *Reference Cell Identifier* IE. If either uplink or downlink load satisfies the requested report characteristics, the $RNC_2$ shall report the result of both uplink and downlink measurements.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", "UTRAN GANSS Timing of Cell Frames for UE Positioning", "transmitted carrier power", "received total wide band power", or "UL timeslot ISCP" the $RNC_2$ shall initiate measurements on the measured object identified by the *Reference Cell Identifier* IE.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning", then the $RNC_2$ shall initiate the UTRAN GANSS Timing of Cell Frames measurements using the GNSS system time identified by *GANSS Time ID* IE included in the COMMON MEASUREMENT INITIATION REQUEST message.

- If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning" and the *GANSS Time ID* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the $RNC_2$ shall assume that the corresponding GANSS time is "Galileo" system time.

If the *Common Measurement Type* IE is set to "RT load", the $RNC_2$ shall initiate measurements of uplink and downlink estimated share of RT (Real Time) traffic of the load of the measured object. If either uplink or downlink RT load satisfies the requested report characteristics, the $RNC_2$ shall report the result of both uplink and downlink measurements.

If the *Common Measurement Type* IE is set to "NRT load Information", the $RNC_2$ shall initiate measurements of uplink and downlink NRT (Non Real Time) load situation on the measured object. If either uplink or downlink NRT load satisfies the requested report characteristics, the $RNC_2$ shall report the result of both uplink and downlink measurements.

**Report characteristics**

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *SFN* IE is not provided, the $RNC_2$ shall report the result of the requested measurement immediately in the COMMON MEASUREMENT INITIATION RESPONSE message. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference ", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Periodic" and if the *SFN* IE is not provided, the $RNC_2$ shall immediately and periodically initiate a Common Measurement Reporting procedure for this measurement, with a frequency as specified by the *Report Periodicity* IE. If the *SFN* IE is provided, the $RNC_2$ shall initiate a Common Measurement Reporting procedure for this measurement at the SFN indicated in the *SFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference ", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Event A", the $RNC_2$ shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the $RNC_2$ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the $RNC_2$ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the $RNC_2$ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the $RNC_2$ shall initiate the Common Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, the $RNC_2$ shall not initiate the next C event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the $RNC_2$ shall initiate the Common Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this fall occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event,, the $RNC_2$ shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event E", the $RNC_2$shall initiate the Common Measurement Reporting procedure when the measured entity rises above the *Measurement Threshold 1* IE and stays above the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the $RNC_2$ shall initiate the Common Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity falls below the *Measurement Threshold 2* IE and stays below the threshold for the *Measurement Hysteresis Time* IE, the $RNC_2$ shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the $RNC_2$ shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the $RNC_2$ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the $RNC_2$ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the *Measurement Threshold 1* IE and stays below the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the $RNC_2$ shall initiate the Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE, the $RNC_2$ shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the $RNC_2$ shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the $RNC_2$ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the $RNC_2$ shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the first measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE. Following the first measurement report, the $RNC_2$ shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

1. If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":

   - If the $T_{UTRAN\text{-}GPS}$ *Change Limit* IE is included in the $T_{UTRAN\text{-}GPS}$ *Measurement Threshold Information* IE, the $RNC_2$ shall calculate the change of $T_{UTRAN\text{-}GPS}$ value ($F_n$) each time a new measurement result is received after point C in the measurement model [26]. The $RNC_2$ shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of $F_n$ rises above the threshold indicated by the $T_{UTRAN\text{-}GPS}$ *Change Limit* IE. The change of $T_{UTRAN\text{-}GPS}$ value ($F_n$) is calculated according to the following:

     $F_n$=0 for n=0

     $F_n = (M_n - M_{n-1}) \bmod 37158912000000 - ((SFN_n - SFN_{n-1}) \bmod 4096) *10*3.84*10\text{^}3*16 + F_{n-1}$ for n>0

     $F_n$ is the change of the $T_{UTRAN\text{-}GPS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

     $M_n$ is the latest measurement result received after point C in the measurement model [26], measured at $SFN_n$.

     $M_{n-1}$ is the previous measurement result received after point C in the measurement model [26], measured at $SFN_{n-1.}$

     $M_1$ is the first measurement result received after point C in the measurement model [26], after first Common Measurement Reporting at initiation or after the last event was triggered.

     $M_0$ is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

   - If the *Predicted* $T_{UTRAN\text{-}GPS}$ *Deviation Limit* IE is included in the $T_{UTRAN\text{-}GPS}$ *Measurement Threshold Information* IE, the $RNC_2$ shall update the $P_n$ and F each time a new measurement result is received after point C in the measurement model [26]. The $RNC_2$ shall initiate the Common Measurement Reporting procedure and set n equal to zero when $F_n$ rises above the threshold indicated by the *Predicted* $T_{UTRAN\text{-}GPS}$ *Deviation Limit* IE. The $P_n$ and $F_n$ are calculated according to the following:

     $P_n$=b for n=0

     $P_n = ((a/16) * ((SFN_n - SFN_{n-1}) \bmod 4096) /100 + ((SFN_n - SFN_{n-1}) \bmod 4096)*10*3.84*10\text{^}3*16 + P_{n-1}) \bmod 37158912000000$ for n>0

     $F_n = \min((M_n - P_n) \bmod 37158912000000, (P_n - M_n) \bmod 37158912000000)$ for n>0

     $P_n$ is the predicted $T_{UTRAN\text{-}GPS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

     A is the last reported $T_{UTRAN\text{-}GPS}$ Drift Rate value.

     B is the last reported $T_{UTRAN\text{-}GPS}$ value.

$F_n$ is the deviation of the last measurement result from the predicted $T_{UTRAN-GPS}$ value ($P_n$) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

$M_n$ is the latest measurement result received after point C in the measurement model [26], measured at $SFN_n$.

$M_1$ is the first measurement result received after point C in the measurement model [26], after first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{UTRAN-GPS}$ Drift Rate is determined by the $RNS_2$ in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

2. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference":

- If the *SFN-SFN Change Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the $RNC_2$ shall calculate the change of SFN-SFN value ($F_n$) each time a new measurement result is received after point C in the measurement model [26]. The $RNC_2$ shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the absolute value of $F_n$ rises above the threshold indicated by the *SFN-SFN Change Limit* IE. The change of the SFN-SFN value is calculated according to the following:

  $F_n$=0 for n=0

  [FDD – $F_n = (M_n - a) \bmod 614400$ for n>0]

  [TDD – $F_n = (M_n - a) \bmod 40960$ for n>0]

  $F_n$ is the change of the SFN-SFN value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

  A is the last reported SFN-SFN.

  $M_n$ is the latest measurement result received after point C in the measurement model [26], measured at $SFN_n$.

  $M_1$ is the first measurement result received after point C in the measurement model [26], after the first Common Measurement Reporting at initiation or after the last event was triggered.

- If the *Predicted SFN-SFN Deviation Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the $RNC_2$ shall each time a new measurement result is received after point C in the measurement model [26], update the $P_n$ and $F_n$. The $RNC_2$ shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when $F_n$ rises above the threshold indicated by the *Predicted SFN-SFN Deviation Limit* IE. The $P_n$ and $F_n$ are calculated according to the following:

  $P_n$=b for n=0

  [FDD – $P_n = ((a/16) * ((SFN_n - SFN_{n-1}) \bmod 4096)/100 + P_{n-1}) \bmod 614400$ for n>0]

  [FDD – $F_n = \min((M_n - P_n) \bmod 614400, (P_n - M_n) \bmod 614400)$ for n>0]

  [TDD – $P_n = ((a/16) * (15*(SFN_n - SFN_{n-1}) \bmod 4096 + (TS_n - TS_{n-1}))/1500 + P_{n-1}) \bmod 40960$ for n>0]

  [TDD – $F_n = \min((M_n - P_n) \bmod 40960, (P_n - M_n) \bmod 40960)$ for n>0]

  $P_n$ is the predicted SFN-SFN value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

  A is the last reported SFN-SFN Drift Rate value.

  B is the last reported SFN-SFN value.

  $F_n$ is the deviation of the last measurement result from the predicted SFN-SFN value ($P_n$) when n measurements have been received after first Common Measurement Reporting at initiation or after the last event was triggered.

  $M_n$ is the latest measurement result received after point C in the measurement model [26], measured at the [TDD – the Time Slot $TS_n$ of] the Frame $SFN_n$.

$M_1$ is the first measurement result received after point C in the measurement model [26], after first Common Measurement Reporting at initiation or after the last event was triggered.

The SFN-SFN Drift Rate is determined by the $RNS_2$ in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

3. If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning":

- If the $T_{UTRAN-GANSS}$ *Change Limit* IE is included in the $T_{UTRAN-GANSS}$ *Measurement Threshold Information* IE, the $RNC_2$ shall calculate the change of $T_{UTRAN-GANSS}$ value ($F_n$) each time a new measurement result is received after point C in the measurement model [26]. The $RNC_2$ shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of $F_n$ rises above the threshold indicated by the $T_{UTRAN-GANSS}$ *Change Limit* IE. The change of $T_{UTRAN-GANSS}$ value ($F_n$) is calculated according to the following:

  Fn=0 for n=0

  Fn = (GAMn – GAMn-1) mod 5308416000000 – ((SFNn – SFNn-1) mod 4096) *10*3.84*10^3*16 + Fn-1

  for n>0

  Fn is the change of the TUTRAN-GANSS value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

  GAMn is the latest GANSS measurement result received after point C in the GANSS measurement model, measured at SFNn.

  GAMn-1 is the previous GANSS measurement result received after point C in the GANSS measurement model, measured at SFNn-1.

  GAM1 is the first GANSS measurement result received after point C in the GANSS measurement model, after the first Common Measurement Reporting at initiation or after the last event was triggered.

  GAM0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

  GANSS measurement model is the timing between cell j and GANSS Time Of Day. $T_{UE-GANSSj}$ is defined as the time of occurrence of a specified UTRAN event according to GANSS time. The specified UTRAN event is the beginning of a particular frame (identified through its SFN) in the first detected path (in time) of the cell j CPICH, where cell j is a cell chosen by the UE. The reference point for $T_{UE-GANSSj}$ shall be the antenna connector of the UE.

- If the *Predicted* $T_{UTRAN-GANSS}$ *Deviation Limit* IE is included in the $T_{UTRAN-GANSS}$ *Measurement Threshold Information* IE, the $RNC_2$ shall update the $P_n$ and F each time a new measurement result is received after point C in the measurement model [26]. The $RNC_2$ shall initiate the Common Measurement Reporting procedure and set n equal to zero when $F_n$ rises above the threshold indicated by the *Predicted* $T_{UTRAN-GANSS}$ *Deviation Limit* IE. The $P_n$ and $F_n$ are calculated according to the following:

  $P_n$=b for n=0

  $P_n = ((a/16) * ((SFN_n – SFN_{n-1}) \bmod 4096)/100 + ((SFN_n – SFN_{n-1}) \bmod 4096)*10*3.84*10\text{^}3*16 + P_{n-1}) \bmod 5308416000000$ for n>0

  $F_n = \min((GAM_n – P_n) \bmod 5308416000000, (P_n – GAM_n) \bmod 5308416000000)$ for n>0

  $P_n$ is the predicted $T_{UTRAN-GANSS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

  A is the last reported $T_{UTRAN-GANSS}$ Drift Rate value.

  B is the last reported $T_{UTRAN-GANSS}$ value.

  $F_n$ is the deviation of the last measurement result from the predicted $T_{UTRAN-GANSS}$ value ($P_n$) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

$GAM_n$ is the latest GANSS measurement result received after point C in the GANSS measurement model, measured at $SFN_n$.

$GAM_1$ is the first GANSS measurement result received after point C in the GANSS measurement model, after the first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{UTRAN-GANSSS}$ Drift Rate is determined by the $RNS_2$ in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

If the *Report Characteristics* IE is not set to "On Demand", the $RNC_2$ is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists any more, the $RNC_2$ shall terminate the measurement locally without reporting this to $RNC_1$.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the $RNC_2$ shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

**Common measurement accuracy**

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the $RNC_2$ shall use the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:.

- If the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE indicates "Class A", then the concerned $RNC_2$ shall perform the measurement with the highest supported accuracy within the accuracy classes A, B or C.
- If the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE indicates the "Class B", then the concerned $RNC_2$ shall perform the measurements with the highest supported accuracy within the accuracy classes B and C.
- If the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE indicates "Class C", then the concerned $RNC_2$ shall perform the measurements with the highest supported accuracy according to class C.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the concerned $RNC_2$ shall initiate the SFN-SFN observed Time Difference measurements between the reference cell identified by *UC-ID* IE and the neighbouring cells identified by their UC-ID. The *Report Characteristics* IE applies to each of these measurements.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE positioning", then the $RNC_2$ shall use the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:

- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates "Class A", then the concerned $RNC_2$ shall perform the measurement with the highest supported accuracy within the accuracy classes A, B or C.
- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates the "Class B", then the concerned $RNC_2$ shall perform the measurements with the highest supported accuracy within the accuracy classes B and C.
- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates "Class C", then the concerned $RNC_2$ shall perform the measurements with the highest supported accuracy according to class C.

**Higher layer filtering**

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

$F_n$ is the updated filtered measurement result

$F_{n-1}$ is the old filtered measurement result

$M_n$ is the latest received measurement result from physical layer measurements, the unit used for $M_n$ is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

$A = ½^{(k/2)}$ -, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering).

In order to initialise the averaging filter, $F_0$ is set to $M_1$ when the first measurement result from the physical layer measurement is received.

**Measurement Recovery Behavior:**

If the *Measurement Recovery Behavior* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the $RNC_2$ shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the COMMON MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.5.3.2.

**Response message**
If the $RNC_2$ was able to initiate the measurement requested by RNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message.

In the case in which the *Report Characteristics* IE is set to "On Demand" or "On Modification":

- The COMMON MEASUREMENT INITIATION RESPONSE message shall include the *Common Measurement Object Type* IE containing the measurement result. It shall also include the *Common Measurement Achieved Accuracy* IE if the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE positioning" or "UTRAN GANSS Timing of Cell Frames for UE positioning".

- If the *Common Measurement Type* IE is not set to "SFN-SFN Observed Time Difference" and if the *SFN Reporting Indicator* IE is set to "FN Reporting Required", then the $RNC_2$ shall include the *SFN* IE in the COMMON MEASUREMENT INITIATION RESPONSE message,. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.

- If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the $RNC_2$ shall report all the available measurements in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE, and the $RNC_2$ shall report the neighbouring cells with no measurement result available in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE. For all available measurement results, the $RNC_2$ shall include in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE, if available.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the $RNC_2$ shall include in the $T_{UTRAN\text{-}GPS}$ *Measurement Value Information* IE the $T_{UTRAN\text{-}GPS}$ *Quality* IE and the $T_{UTRAN\text{-}GPS}$ *Drift Rate Quality* IE, if available.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the $RNC_2$ shall include in the $T_{UTRAN\text{-}GANSS}$ *Measurement Value Information* IE, the $T_{UTRAN\text{-}GANSS}$ *Quality* IE and the $T_{UTRAN\text{-}GANSS}$ *Drift Rate Quality* IE, if available.

#### 8.5.2.2.1 Successful Operation for Iur-g

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the $RNC_1$ to the $BSS_2$ or from the $BSS_1$ to the $RNC_2/BSS_2$.

Upon receipt, the $RNC_2$ /$BSS_2$ shall initiate the requested measurement according to the parameters given in the request.

**Common measurement type on Iur-g**

If the *Common Measurement Type* IE is set to "load", the $RNC_2/BSS_2$ shall initiate measurements and report results as described in section 8.5.2.2.

If the *Common Measurement Type* IE is set to "RT load", the $RNC_2/BSS_2$ shall initiate measurements and report results as described in section 8.5.2.2.

If the *Common Measurement Type* IE is set to "NRT load Information", the $RNC_2/BSS_2$ shall initiate measurements and report results as described in section 8.5.2.2.

**Report characteristics on Iur-g**

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. This IE is used as described in section 8.5.2.2.

**Response message for Iur-g**

If the $RNC_2/BSS_2$ was able to initiate the measurement requested by $RNC_1/BSS_1$ it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent. The message shall include the same Measurement ID that was used in the measurement request. Only in the case when the *Report Characteristics* IE is set to "On Demand", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result.

### 8.5.2.3 Unsuccessful Operation

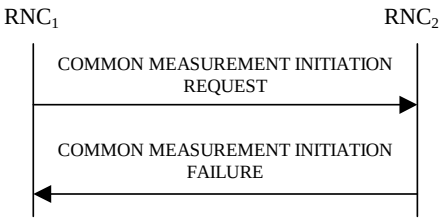



**Figure 30B: Common Measurement Initiation procedure, Unsuccessful Operation**

If the requested measurement cannot be initiated, the $RNC_2$ shall send a COMMON MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the COMMON MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause**

- Measurement not supported for the object.
- Measurement Temporarily not Available

### 8.5.2.4 Abnormal Conditions

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the $RNC_2$ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN\text{-}GPS}$ *Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the $RNC_2$ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN\text{-}GANSS}$ *Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the $RNC_2$ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE positioning", but the $T_{UTRAN\text{-}GPS}$ *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON

MEASUREMENT INITIATION REQUEST message, the $RNC_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE positioning", but the $T_{UTRAN\text{-}GANSS}$ *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the $RNC_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type received in the *Common Measurement Type* IE is not "load", "RT load" or "NRT load Information", and if the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [11] or [15] to be measured on the Common Measurement Object Type indicated in the COMMON MEASUREMENT INITIATION REQUEST message the $RNC_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the $RNC_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the $RNC_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

**Table 5: Allowed Common Measurement Type and Report Characteristics Type Combinations**

| Common measurement type | Report characteristics type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| Received total wide band power | X | X | X | X | X | X | X | X | |
| Transmitted Carrier Power | X | X | X | X | X | X | X | X | |
| UL Timeslot ISCP | X | X | X | X | X | X | X | X | |
| Load | X | X | X | X | X | X | X | X | |
| UTRAN GPS Timing of Cell Frames for UE Positioning | X | X | | | | | | | X |
| SFN-SFN Observed Time Difference | X | X | | | | | | | X |
| RT load | X | X | X | X | X | X | X | X | |
| NRT load Information | X | X | X | X | X | X | X | X | |
| UpPTS interference | X | X | X | X | X | X | X | X | |
| UTRAN GANSS Timing of Cell Frames for UE Positioning | X | X | | | | | | | X |

[TDD – If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD and 7.68 Mcps TDD – *Time Slot* IE] [1.28Mcps TDD – *Time Slot LCR* IE] is not provided in the COMMON MEASUREMENT INITIATION REQUEST message the $RNS_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.]

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the $RNS_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

#### 8.5.2.4.1 Abnormal Conditions for Iur-g

The measurements which can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X".

**Table 6: Allowed Common measurement type on Iur and Iur-g interfaces**

| Common Measurement Type | Interface | |
|---|---|---|
| | Iur | Iur-g |
| Received total wide band power | X | |
| Transmitted Carrier Power | X | |
| UL Timeslot ISCP | X | |
| Load | X | X |
| UTRAN GPS Timing of Cell Frames for LCS | X | |
| SFN-SFN Observed Time Difference | X | |
| RT load | X | X |
| NRT load Information | X | X |
| UTRAN GANSS Timing of Cell Frames for UE Positioning | X | |

If the $RNC_2$ receives from the $BSS_1$ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the $RNC_2$ shall reject the Common Measurement Initiation procedure.

If the $BSS_2$ receives from the $BSS_1$ / $RNC_1$ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the $BSS_2$ shall reject the Common Measurement Initiation procedure.

If the $RNC_2$ receives from the $BSS_1$ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the $RNC_2$ shall ignore that IE.

If the $BSS_2$ receives from the $BSS_1$ / $RNC_1$ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the $BSS_2$ shall ignore that IE.

The allowed combinations of the Common measurement type and Report characteristics type are shown in the table in section 8.5.2.4 marked with "X". For not allowed combinations, the $RNC_2$/$BSS_2$ shall reject the Common Measurement Initiation procedure.

## 8.5.3 Common Measurement Reporting

### 8.5.3.1 General

This procedure is used by an RNC to report the result of measurements requested by another RNC using the Common Measurement Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

### 8.5.3.2 Successful Operation




**Figure 30C: Common Measurement Reporting procedure, Successful Operation**

If the requested measurement reporting criteria are met, the $RNC_2$ shall initiate the Common Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by $RNC_1$ when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref. [23] and [24]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the *Common Measurement Value Information* IE shall indicate Measurement not Available. If the $RNC_2$ was configured to perform the Measurement Recovery Behavior, the $RNC_2$ shall indicate Measurement Available to the $RNC_1$ when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [23] and [24]) and include the *Measurement Recovery Report Indicator* IE in the COMMON MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

For measurements included in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE, the $RNC_2$ shall include the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE if available.

If the Common Measurement Type provided by $RNC_1$ when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the $RNC_2$ shall include in the $T_{UTRAN-GPS}$ *Measurement Value Information* IE the $T_{UTRAN-GPS}$ *Quality* IE and the $T_{UTRAN-GPS}$ *Drift Rate Quality* IE, if available.

If the Common Measurement Type provided by $RNC_1$ when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GANSS Timing of Cell Frames for UE Positioning", then the $RNC_2$ shall include in the $T_{UTRAN-GANSS}$ *Measurement Value Information* IE the $T_{UTRAN-GANSS}$ *Quality* IE and the $T_{UTRAN-GANSS}$ *Drift Rate Quality* IE, if available.

#### 8.5.3.2.1 Successful Operation for Iur-g

If the requested measurement reporting criteria are met, the $RNC_2$/$BSS_2$ shall initiate a Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Common Measurement ID* IE shall be set to the Common Measurement ID provided by $RNC_1$/$BSS_1$ when initiating the measurement with the Common Measurement Initiation procedure.

If the Common measurement type provided by $RNC_1$ when initiating the measurement with the Common Measurement Initiation procedure was "SFN-SFN Observed Time Difference", then $RNC_2$ shall include in the COMMON MEASUREMENT REPORT all the available measurements in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE and shall include the neighbouring cells with no measurement result available in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE.

If the Common measurement type provided by $RNC_1$ when initiating the measurement with the Common Measurement Initiation procedure was not set to "SFN-SFN Observed Time Difference" and the SFN Reporting Indicator when initiating the measurement was set to "FN Reporting Required", the $RNC_2$ shall include the *SFN* IE in the COMMON MEASUREMENT REPORT message. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.

### 8.5.3.3 Abnormal Conditions

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## 8.5.4 Common Measurement Termination

### 8.5.4.1 General

This procedure is used by an RNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

#### 8.5.4.2 Successful Operation




**Figure 30D: Common Measurement Termination procedure, Successful Operation**

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message.

Upon receipt, $RNC_2$ shall terminate reporting of common measurements corresponding to the received *Measurement ID* IE.

##### 8.5.4.2.1 Successful Operation for Iur-g

The $RNC_1/BSS_1$ and $RNC_2/BSS_2$ shall use the Common Measurement Termination procedure as specified in section 8.5.4.2.

#### 8.5.4.3 Abnormal Conditions

-

### 8.5.5 Common Measurement Failure

#### 8.5.5.1 General

This procedure is used by an RNC to notify another RNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

#### 8.5.5.2 Successful Operation

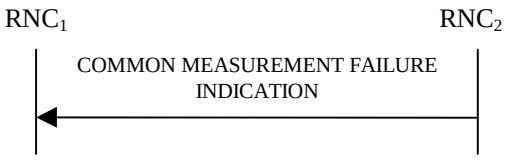



**Figure 30E: Common Measurement Failure procedure, Successful Operation**

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from $RNC_2$ to $RNC_1$ to inform the $RNC_1$ that a previously requested measurement can no longer be reported. $RNC_2$ has locally terminated the indicated measurement. The $RNC_2$ shall include in the COMMON MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

##### 8.5.5.2.1 Successful Operation for Iur-g

The $RNC_1/BSS_1$ and $RNC_2/BSS_2$ shall use the Common Measurement Failure procedure as specified in section 8.5.5.2.

#### 8.5.5.3 Abnormal Conditions

-

## 8.5.6 Information Exchange Initiation

### 8.5.6.1 General

This procedure is used by an RNC to request the initiation of an information exchange with another RNC.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

### 8.5.6.2 Successful Operation

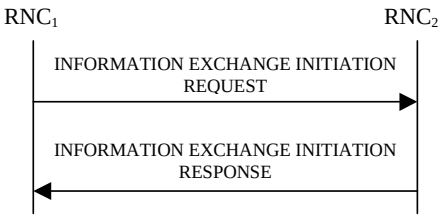



**Figure 30F: Information Exchange Initiation procedure, Successful Operation**

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from $RNC_1$ to $RNC_2$.

Upon receipt, the $RNC_2$ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

If the *Information Exchange Object Type* is set to "MBMS Bearer Service" and the *Information Type Item* IE is set to "MBMS Bearer Service Full Address", the $RNC_2$ shall report for each TMGI included in the received *MBMS Bearer Service Identifiers List* IE, the Access Point Name and the IP Multicast Address corresponding to this TMGI in the *MBMS Bearer Service Identifiers List* IE in the INFORMATION EXCHANGE INITIATION RESPONSE message.

[FDD – If the *Information Exchange Object Type* is set to "MBMS Bearer Service in MBMS Cell" and the *Information Type Item* IE is set to "MBMS Counting Information", the $RNC_2$ shall perform counting in cells as defined in [50] and report in the *Counting Result* IE for each TMGI included in the received *MBMS Bearer Service Identifiers List* IE for each cell included in the received *MBMS Cell List* IE either the counting information or, if relevant counting information is not available in $RNC_2$ [50], the value "0" in the INFORMATION EXCHANGE INITIATION RESPONSE message.]

[FDD – If the *Information Exchange Object Type* is set to "MBMS Bearer Service in MBMS Cell" and the *Information Type Item* IE is set to "MBMS Transmission Mode", the $RNC_2$ shall report for each TMGI included in the received *MBMS Bearer Service Identifiers List* IE for each cell included in the received *MBMS Cell List* IE, the transmission mode for each TMGI in the cells of $RNC_2$ that have a neighbour relation to the cells received in *MBMS Cell List* IE as defined in [50] in the INFORMATION EXCHANGE INITIATION RESPONSE message. If no cells of $RNC_2$ have a neighbour relation to a cell received in *MBMS Cell List* IE for a TMGI the value "Not Provided" shall be used]

[FDD – If the *Information Exchange Object Type* is set to "MBMS Cell" and the *Information Type Item* IE is set to "MBMS Neighbouring Cell Information", the $RNC_2$ shall report for each cell included in the received *MBMS Cell List* IE, the MBMS radio bearer information for each cells in the INFORMATION EXCHANGE INITIATION RESPONSE message.]

[FDD – If the *Information Exchange Object Type* is set to "MBMS Bearer Service in MBMS Cell" and the *Information Type Item* IE is set to "MBMS RLC Sequence Number", the $RNC_2$ shall report for each TMGI included in the received *MBMS Bearer Service Identifiers List* IE for each cell included in the received *MBMS Cell List* IE, the RLC sequence number for each TMGI for the indicated cells in the INFORMATION EXCHANGE INITIATION RESPONSE message.]

If the *Information Type* IE contains a *GANSS Generic Data* IE, at least one of the *GANSS Navigation Model And Time Recovery*, *GANSS Time Model GNSS-GNSS*, *GANSS UTC Model*, *GANSS Almanac*, *GANSS Real Time Integrity*, *GANSS Data Bit Assistance*, *GANSS Additional Navigation Models And Time Recovery*, *GANSS Additional UTC Models*, *GANSS Auxiliary Information* IEs shall be present in the *GANSS Generic Data* IE.

- If the *GANSS Generic Data* IE does not contain the *GANSS ID* IE, the $RNC_2$ shall assume that the corresponding GANSS is "Galileo".

**Information Report Characteristics:**

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the $RNC_2$ shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the $RNC_2$ shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the report frequency indicated by the *Information Report Periodicity* IE.

If the *Information Report Characteristics* IE is set to "On Modification", the $RNC_2$ shall report the requested information immediately if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the $RNC_2$ shall initiate the Information Reporting procedure when the requested information becomes available. The $RNC_2$ shall then initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to "IPDL Parameters", the $RNC_2$ shall initiate the Information Reporting procedure when any change in the parameters occurs.

- If the *Information Type Item* IE is set to "DGPS Corrections", the $RNC_2$ shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Recovery Assistance", the $RNC_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *Sat ID* IEs.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the $RNC_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the $RNC_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the $t_{ot}$ or $WN_t$ parameter.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the $RNC_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the $t_{oa}$ or $WN_a$ parameter has occurred.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the $RNC_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

- If the *Information Type* IE is set to "Cell Capacity Class", the $RNC_2$ shall initiate the Information Reporting procedure for uplink and downlink cell capacity class when any change has occurred. If either uplink or downlink cell capacity class satisfies the requested report characteristics, the $RNC_2$ shall report the result of both uplink and downlink cell capacity information.

- If any of the above *Information Type* IEs becomes temporarily unavailable, the $RNC_2$ shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the $RNC_2$ shall initiate the Information Reporting procedure for this specific Information.

- If the *Information Type* IE is set to "NACC related data", the $RNC_2$ shall initiate the Information Reporting procedure for NACC related data if any change has occurred.

- If the *Information Type* IE is set to "Inter-frequency Cell Information", the $RNC_2$ shall initiate the Information Reporting procedure for this specific Information Item when any change has occurred to the inter-frequency cell information broadcasted in the SIB11 or SIB12.

- If the *Information Type Item* IE is set to "DGANSS Corrections", the $RNC_2$ shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Navigation Model And Time Recovery* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when a change has occurred regarding either the IOD or the list of visible satellites, identified by the *Sat ID* IEs.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Ionospheric Model* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when any change has occurred.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS UTC Model* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when a change has occurred in the $t_{ot}$ or $WN_t$ parameter.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Almanac* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when a change in the $T_{oa}$, $IOD_a$, or Week Number parameter has occurred.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Real Time Integrity* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when any change has occurred.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Data Bit Assistance* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when any change has occurred.

- If the *Information Type Item* IE is set to "MBMS Transmission Mode", the $RNC_2$ shall initiate the Information Reporting procedure when any change in the parameter occurs.

- If the *Information Type Item* IE is set to "MBMS Neighbouring Cell Information", the $RNC_2$ shall initiate the Information Reporting procedure when any change in the parameters occurs.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Additional Navigation Models And Time Recovery* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information item when a change has occurred regarding either the IOD or the list of visible satellites, identified by the *Sat ID* IEs.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Additional Ionospheric Model* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Additional UTC Models* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information item when a change has occurred in the $t_{ot}$,$WN_{ot}$, $WN_t$, or $N^A$ parameter.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Earth Orientation Parameters* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information item when a change has occurred in the $t_{EOP}$ parameter.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Auxiliary Information* IE, the $RNC_2$ shall initiate the Information Reporting procedure for this specific GANSS Information item when a change has occurred in the *Signals Available* or *Channel Number* IE parameter.

**Response message:**

If the $RNC_2$ is able to determine the information requested by the $RNC_1$, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the *Information Exchange ID* IE set to the same value that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE if the data are available. When the

*Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

If the *Requested DataValue* IE contains the *GANSS Common Data* IE, at least one of the *GANSS Ionospheric Model, GANSS RX Pos, GANSS Additional Ionospheric Model,* or *GANSS Earth Orientation Parameters* IEs shall be present.

Any *GANSS Generic Data* IE associated with a given GANSS included in the *Requested DataValue* IE shall contain at least one of the *DGANSS Corrections, GANSS Navigation Model And Time Recovery, GANSS Time Model, GANSS UTC Model, GANSS Almanac, GANSS Real Time Integrity, GANSS Data Bit Assistance, GANSS Additional Time Models, GANSS Additional Navigation Models And Time Recovery, GANSS Additional UTC Models,* or *GANSS Auxiliary Information* IEs.

- If the *GANSS Generic Data* IE does not contain the *GANSS ID* IE, the corresponding GANSS is "Galileo".

- The *DGANSS Corrections* IE contains one or several *DGANSS Information* IE(s), each of them associated with a GANSS Signal. A *DGANSS Information* IE for a particular GANSS that does not contain the *GANSS Signal ID* IE is by default associated with the default signal defined in [16], clause 10.3.3.45a.

- The *GANSS Real Time Integrity* IE contains one or several *Satellite Information* IEs, each of them associated with a satellite and a GANSS Signal. A *Satellite Information* IE for a particular GANSS that does not contain the *Bad GANSS Signal ID* IE is by default associated with all the signals of the corresponding satellite (see [53, 55, 56, 57, 58, 59, 60]).

If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Time Model GNSS-GNSS* IE with exactly one bit set to value "1", the $RNC_2$ shall include the *GANSS Time Model* IE in the *Requested Data Value* IE with the requested time information.

If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Time Model GNSS-GNSS* IE with more than one bit set to value "1", the $RNC_2$ shall include the *GANSS Additional Time Models* IE in *Requested Data Value* IE with the requested time information for each GANSS.

If the *Information Type Item* IE is set to "DGPS Corrections", the $RNC_2$ shall include the *DGPS Corrections* IE in *Requested Data Value* IE with the *DGNSS Validity Period* IE included, if available.

If the *Information Type Item* IE is set to "DGANSS Corrections", the Node B shall include the *DGANSS Corrections* IE in *Requested Data Value* IE with the *DGNSS Validity Period* IE included, if available.

#### 8.5.6.2.1 Successful Operation for Iur-g

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from $BSS_1$ to $BSS_2$/$RNC_2$ or by $RNC_1$ to $BSS_2$.

Upon receipt, the $BSS_2$/$RNC_2$ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

**Information Report Characteristics on Iur-g:**

If the *Information Type Item* IE is set to "Cell Capacity Class", the $RNC_2$/$BSS_2$ shall initiate measurements and report results as described in section 8.5.6.2.

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed. This IE is used as described in section 8.5.6.2.

### 8.5.6.3 Unsuccessful Operation

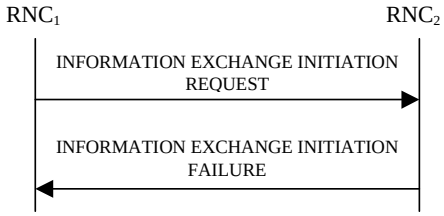



**Figure 30G: Information Exchange Initiation procedure, Unsuccessful Operation**

If the requested Information Type received in the *Information Type* IE indicates a type of information that $RNC_2$ cannot provide, the $RNC_2$ shall reject the Information Exchange Initiation procedure.

If the requested information provision cannot be accessed, the $RNC_2$ shall reject the procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The message shall include the *Information Exchange ID* IE set to the same value that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause**:

- Information temporarily not available.
- Information Provision not supported for the object.

### 8.5.6.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the $RNC_2$ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

If the *Information Exchange Object Type* IE is set to a value other than "GSM Cell" and the *Information Type Item* IE set to "NACC related data" the $RNC_2$ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

If the *Information Type Item* IE is set to the value "MBMS Bearer Service Full Address" and the *Information Exchange Object Type* IE is not set to "MBMS Bearer Service", the $RNC_2$ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The allowed combinations of the Information type and Information Report Characteristics type are shown in the table below marked with "X". For not allowed combinations, the $RNC_2$ shall reject the Information Exchange Initiation procedure using the INFORMATION EXCHANGE INITIATION FAILURE message.

**Table 6a: Allowed Information Type and Information Report Characteristics type combinations**

| Type | Information Report Characteristics Type | | |
|---|---|---|---|
| | On Demand | Periodic | On Modification |
| UTRAN Access Point Position with Altitude Information | X | | |
| UTRAN Access Point Position | X | | |
| IPDL Parameters | X | X | X |
| GPS Information | X | X | X |
| DGPS Corrections | X | X | X |
| GPS RX Pos | X | | |
| SFN-SFN Measurement Reference Point Position | X | | |
| Cell Capacity Class | X | | X |
| NACC related data | X | | X |
| MBMS Bearer Service Full Address | X | | |
| Inter-frequency Cell Information | X | | X |
| GANSS Information | X | X | X |
| DGANSS Corrections | X | X | X |
| GANSS RX Pos | X | | |
| MBMS Counting Information [FDD only] | X | | |
| MBMS Transmission Mode [FDD only] | | | X |
| MBMS Neighbouring Cell Information [FDD only] | X | | X |
| MBMS RLC Sequence Number [FDD only] | X | | |

#### 8.5.6.4.1 Abnormal Conditions for Iur-g

The information types that can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X". For information types that are not applicable on the Iur-g interface, the BSS shall reject the Information Exchange Initiation procedure.

**Table 7: Allowed Information types on Iur and Iur-g interfaces**

| Information Type | Interface | |
|---|---|---|
| | Iur | Iur-g |
| UTRAN Access Point Position with Altitude Information | X | |
| UTRAN Access Point Position | X | |
| IPDL Parameters | X | |
| DGPS Corrections | X | |
| GPS Information | X | |
| GPS RX Pos | X | |
| SFN-SFN Measurement Reference Point Position | X | |
| Cell Capacity Class | X | X |
| NACC related data | X | |
| MBMS Bearer Service Full Address | X | |
| Inter-frequency Cell Information | X | |
| DGANSS Corrections | X | |
| GANSS Information | X | |
| GANSS RX Pos | X | |
| MBMS Counting Information [FDD only] | X | |
| MBMS Transmission Mode [FDD only] | X | |
| MBMS Neighbouring Cell Information [FDD only] | X | |
| MBMS RLC Sequence Number [FDD only] | X | |

## 8.5.7 Information Reporting

### 8.5.7.1 General

This procedure is used by a RNC to report the result of information requested by another RNC using the Information Exchange Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

### 8.5.7.2 Successful Operation




**Figure 30H: Information Reporting procedure, Successful Operation**

If the requested information reporting criteria are met, the $RNC_2$ shall initiate an Information Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the $RNC_1$ when initiating the information exchange with the Information Exchange Initiation procedure.

The *Requested Data Value* IE shall include at least one IE containing the data to be reported.

#### 8.5.7.2.1 Successful Operation for Iur-g

The $RNC_1/BSS_1$ and $RNC_2/BSS_2$ shall use the Information Reporting procedure as specified in section 8.5.7.2.

### 8.5.7.3 Abnormal Conditions

-

## 8.5.8 Information Exchange Termination

### 8.5.8.1 General

This procedure is used by a RNC to terminate the information exchange requested using the Information Exchange Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

### 8.5.8.2 Successful Operation




**Figure 30I: Information Exchange Termination procedure, Successful Operation**

This procedure is initiated with a INFORMATION EXCHANGE TERMINATION REQUEST message.

Upon receipt, the $RNC_2$ shall terminate the information exchange corresponding to the *Information Exchange ID* IE provided by the $RNC_1$ when initiating the information exchange with the Information Exchange Initiation procedure.

#### 8.5.8.2.1 Successful Operation for Iur-g

The $RNC_1/BSS_1$ and $RNC_2/BSS_2$ shall use the Information Exchange Termination procedure as specified in section 8.5.8.2.

#### 8.5.8.3 Abnormal Conditions

-

### 8.5.9 Information Exchange Failure

#### 8.5.9.1 General

This procedure is used by a RNC to notify another that the information exchange it previously requested using the Information Exchange Initiation can no longer be reported.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

#### 8.5.9.2 Successful Operation




**Figure 30J: Information Exchange Failure procedure, Successful Operation**

This procedure is initiated with a INFORMATION EXCHANGE FAILURE INDICATION message, sent from the $RNC_2$ to the $RNC_1$, to inform the $RNC_1$ that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The $RNC_2$ shall include in the INFORMATION EXCHANGE FAILURE INDICATION message the *Information Exchange ID* IE set to the same value provided by the $RNC_1$ when initiating the information exchange with the Information Exchange Initiation procedure, and the $RNC_2$ shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

**Radio Network Layer Cause**:

Information temporarily not available.

##### 8.5.9.2.1 Successful Operation for Iur-g

The $RNC_1/BSS_1$ and $RNC_2/BSS_2$ shall use the Information Exchange Failure procedure as specified in section 8.5.9.2.

### 8.5.10 Reset

#### 8.5.10.1 General

The purpose of the reset procedure is to align the resources in $RNC_1$ and $RNC_2$ in the event of an abnormal failure.

The procedure uses connectionless signalling.

#### 8.5.10.2 Successful Operation

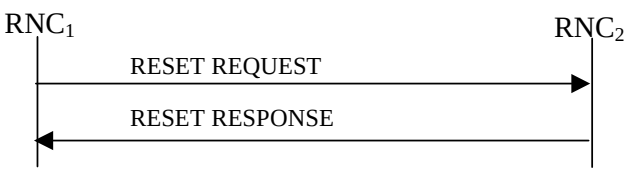



**Figure 30K: Reset procedure, Successful Operation**

The procedure is initiated with a RESET REQUEST message sent from the $RNC_1$ to the $RNC_2$.

If the *Reset Indicator* IE is set to "Context", then:

- For all indicated UE Contexts identified by the *S-RNTI* IE, the $RNC_1$ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the $RNC_2$ shall take actions according to Annex D.2.

- For all indicated UE Contexts identified by the *D-RNTI* IE, the RNC2 in the role of SRNC, shall remove the information related to the RNC1 for all indicated UE Contexts and the radio resources allocated for these UE Contexts.

If the *Reset Indicator* IE is set to "Context Group", then:

- For all indicated UE Context Groups identified by the *S-RNTI Group* IE, the $RNC_2$ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC2 shall take actions according to Annex D.2.

If the *Reset Indicator* IE is set to "All Contexts", then the $RNC_2$ shall:

- In the role of DRNC, remove all the UE Contexts for which the $RNC_1$ is the SRNC and all the radio resources allocated for these UE Contexts. In addition, the $RNC_2$ shall take actions according to Annex D.2.

- In the role of SRNC, remove the information related to the $RNC_1$ for all the UE Contexts and all the radio resources allocated for these UE Contexts.

For all the removed UE Contexts and for all the UE Contexts for which the $RNC_2$ has removed information related to the $RNC_1$, the $RNC_2$ shall also initiate release of the dedicated or common user plane resources that were involved in these UE Contexts. After clearing all related resources, the $RNC_2$ shall return the RESET RESPONSE message to the $RNC_1$.

### 8.5.10.3 Abnormal Conditions

If the RESET message is received, any other ongoing procedure (except another Reset procedure) on same Iur interface related to a context indicated explicitly or implicitly in the message shall be aborted.

## 8.5.11 Direct Information Transfer

### 8.5.11.1 General

This procedure is used by an RNC to transfer information to another RNC spontaneously.

This procedure shall use the connectionless mode of signalling bearer.

### 8.5.11.2 Successful Operation




**Figure 30L: Direct Information Transfer procedure, Successful Operation**

The procedure is initiated with an DIRECT INFORMATION TRANSFER message sent from $RNC_1$ to $RNC_2$.

If the initiating RNC of this procedure is $RNC_1$, $RNC_1$ shall provide appropriate information in the *Provided Information* IE.

**MBMS Channel Type Indication:**

At the start time of a session for an MBMS bearer service, if the $RNC_1$ is in the DRNC role for some Ues whose UE Link contains the concerned MBMS bearer service and whose SRNC is $RNC_2$ and if the channel type is determined by the $RNC_1$ for certain cells in the DRNS, the procedure shall be initiated by the $RNC_1$ to the $RNC_2$. In this case, the $RNC_1$ shall include in the *Provided Information* IE the *Channel Type Information* IE in the DIRECT INFORMATION TRANSFER message.

During a session of an MBMS bearer service, if the $RNC_1$ is in the DRNC role for some Ues whose UE Link contains the concerned MBMS bearer service and whose SRNC is $RNC_2$, then the $RNC_1$ may initiate this procedure to indicate channel type change for the MBMS bearer service in certain cells. In this case, the $RNC_1$ shall include in the *Provided Information* IE the *Channel Type Information* IE in the DIRECT INFORMATION TRANSFER message.

The $RNC_1$ shall include the available information within the *PTM Cell List* IE, the *PTP Cell List* IE and/or the *Not Provided Cell List* IE in the *Channel Type Information* IE.

**MBMS Preferred Frequency Layer Indication:**

At the start time of a session for an MBMS bearer service, if the $RNC_1$ is in the DRNC role for at least one CELL_DCH UE whose UE Link contains the concerned MBMS bearer service and whose SRNC is $RNC_2$ and if the preferred frequency layer is determined by the $RNC_1$ for certain cells that host at least one of these CELL_DCH Ues whose SRNC is $RNC_2$, the procedure shall be initiated by the $RNC_1$ to the $RNC_2$. In this case, the $RNC_1$ shall include in the *Provided Information* IE the *Preferred Frequency Layer Information* IE in the DIRECT INFORMATION TRANSFER message.

If some of the cells controlled by $RNC_1$ that host at least one of these CELL_DCH Ues whose SRNC is $RNC_2$ are configured with different preferred frequencies, the *Additional Preferred Frequency* IE as well as *Default Preferred Frequency* IE shall be included in the *Preferred Frequency Layer Information* IE. In this case, for each preferred frequency different from the *Default Preferred Frequency* IE, one *Additional Preferred Frequency* IE shall be included containing at least one *Corresponding Cells* IE.

# 8.6 MBMS Procedures

## 8.6.1 MBMS Attach

### 8.6.1.1 General

The MBMS Attach procedure is used by the SRNC to either create a UE Link/URA Link in the DRNC or inform the DRNC about any addition of one or several MBMS bearer services in an already stored UE Link or URA Link.

This procedure shall use the signalling bearer mode specified below.

### 8.6.1.2 Successful Operation




**Figure 31: MBMS Attach procedure, Successful Operation**

The SRNC initiates the procedure by sending the message MBMS ATTACH COMMAND message to the DRNC.

When the UE is utilising one or more radio links in the DRNC, the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If the UE is not utilising any radio link, the message shall be sent using the connectionless service of the signalling bearer.

If no *UE State* IE is included in the message or the *UE State* IE is set to "CELL_FACH/CELL_PCH", the DRNC shall perform the UE Linking as specified in [50], section 5.1.6.

If the *UE State* IE is set to "URA_PCH", the DRNC shall perform the URA Linking as specified in [50], section 5.1.10.

#### 8.6.1.3 Abnormal Conditions

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### 8.6.2 MBMS Detach

#### 8.6.2.1 General

The MBMS Detach procedure is used by the SRNC to either delete a UE Link/URA Link in the DRNC or to inform DRNC about any removal of one or several MBMS bearer services in an already stored UE link or URA Link.

This procedure shall use the signalling bearer mode specified below.

#### 8.6.2.2 Successful Operation




**Figure 32: MBMS Detach procedure, Successful Operation**

The SRNC initiates the procedure by sending the message MBMS DETACH COMMAND message to the DRNC.

When the UE is utilising one or more radio links in the DRNC, the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If the UE is not utilising any radio link, the message shall be sent using the connectionless service of the signalling bearer.

If no *UE State* IE is included in the message or the *UE State* IE is set to "CELL_FACH/CELL_PCH", the DRNC shall perform the UE De-linking as specified in [50], section 5.1.6.

If the *UE State* IE is set to "URA_PCH", the DRNC shall perform the URA De-linking as specified in [50], section 5.1.10.

#### 8.6.2.3 Abnormal Conditions

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# 9 Elements for RNSAP Communication

## 9.1 Message Functional Definition and Content

### 9.1.1 General

This subclause defines the structure of the messages required for the RNSAP protocol in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, in which the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in [28].

## 9.1.2 Message Contents

### 9.1.2.1 Presence

An information element can be of the following types:

| | |
|---|---|
| **M** | IEs marked as Mandatory (M) shall always be included in the message. |
| **O** | IEs marked as Optional (O) may or may not be included in the message. |
| **C** | IEs marked as Conditional I shall be included in a message only if the condition is satisfied. Otherwise the IE shall not be included. |

In the case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. Each group may be also repeated within one message. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

### 9.1.2.2 Criticality

Each information element or Group of information elements may have criticality information applied to it.
Following cases are possible:

| | |
|---|---|
| **–** | No criticality information is applied explicitly. |
| **YES** | Criticality information is applied. 'YES' is usable only for non-repeatable information elements. |
| **GLOBAL** | The information element and all its repetitions together have one common criticality information. 'GLOBAL' is usable only for repeatable information elements. |
| **EACH** | Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements. |

### 9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs/IE groups.

### 9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

## 9.1.3 RADIO LINK SETUP REQUEST

### 9.1.3.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| SRNC-ID | M | | RNC-ID 9.2.1.50 | If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored. | YES | reject |
| S-RNTI | M | | 9.2.1.53 | | YES | reject |
| D-RNTI | O | | 9.2.1.24 | | YES | reject |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL DPCH Information** | | *1* | | | YES | reject |
| >UL Scrambling Code | M | | 9.2.2.53 | | – | |
| >Min UL Channelisation Code Length | M | | 9.2.2.25 | | – | |
| >Max Number of UL DPDCHs | C – CodeLen | | 9.2.2.24 | | – | |
| >Puncture Limit | M | | 9.2.1.46 | For the UL. | – | |
| >TFCS | M | | 9.2.1.63 | | – | |
| >UL DPCCH Slot Format | M | | 9.2.2.52 | | – | |
| >Uplink SIR Target | O | | Uplink SIR 9.2.1.69 | | – | |
| >Diversity mode | M | | 9.2.2.8 | | – | |
| >Not Used | O | | NULL | | – | |
| >Not Used | O | | NULL | | – | |
| >DPC Mode | O | | 9.2.2.12A | | YES | reject |
| >UL DPDCH Indicator for E-DCH operation | O | | 9.2.2.52A | This IE may be present without the presence of the *E-DPCH Information* IE | YES | reject |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | M | | 9.2.1.63 | | – | |
| >DL DPCH Slot Format | M | | 9.2.2.9 | | – | |
| >Number of DL Channelisation Codes | M | | 9.2.2.26A | | – | |
| >TFCI Signalling Mode | M | | 9.2.2.46 | | – | |
| >TFCI Presence | C-SlotFormat | | 9.2.1.55 | | – | |
| >Multiplexing Position | M | | 9.2.2.26 | | – | |
| **>Power Offset Information** | | *1* | | | – | |
| >>PO1 | M | | Power Offset 9.2.2.30 | Power offset for the TFCI bits. | – | |
| >>PO2 | M | | Power Offset 9.2.2.30 | Power offset for the TPC bits. | – | |
| >>PO3 | M | | Power Offset 9.2.2.30 | Power offset for the pilot bits. | – | |
| >FDD TPC Downlink Step Size | M | | 9.2.2.16 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >Limited Power Increase | M | | 9.2.2.21A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.21a | | – | |
| DCH Information | M | | DCH FDD Information 9.2.2.4A | | YES | reject |
| **RL Information** | | *1..<maxnoofRLs>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.49 | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >First RLS Indicator | M | | 9.2.2.16A | | – | |
| >Frame Offset | M | | 9.2.1.30 | | – | |
| >Chip Offset | M | | 9.2.2.1 | | – | |
| >Propagation Delay | O | | 9.2.2.33 | | – | |
| >Diversity Control Field | C – NotFirstRL | | 9.2.1.20 | | – | |
| >Initial DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Primary CPICH Ec/No | O | | 9.2.2.32 | | – | |
| >Not Used | O | | NULL | | – | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.48 | | – | |
| >Enhanced Primary CPICH Ec/No | O | | 9.2.2.13I | | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.19Aa | | YES | reject |
| >Cell Portion ID | O | | 9.2.2.E | | YES | ignore |
| >RL specific E-DCH Information | O | | 9.2.2.35a | | YES | reject |
| >E-DCH RL Indication | O | | 9.2.2.4E | | YES | reject |
| >Extended Propagation Delay | O | | 9.2.2.33a | | YES | ignore |
| >Synchronisation Indicator | O | | 9.2.2.45A | | YES | reject |
| >HS-DSCH Preconfiguration Setup | O | | 9.2.2.100 | | YES | ignore |
| >Non-Serving RL Preconfiguration Setup | O | | 9.2.2.124 | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.47A | | YES | reject |
| Active Pattern Sequence Information | O | | 9.2.2.A | | YES | reject |
| Permanent NAS UE Identity | O | | 9.2.1.73 | | YES | ignore |
| DL Power Balancing Information | O | | 9.2.2.10A | | YES | ignore |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |
| HS-PDSCH RL ID | C – InfoHSDSCH | | RL ID 9.2.1.49 | | YES | reject |
| **MBMS Bearer Service List** | | *0..<maxnoofMBMS>* | | | GLOBAL | notify |
| >TMGI | M | | 9.2.1.80 | | – | |
| **E-DPCH Information** | | *0..1* | | | YES | reject |
| >Maximum Set of E-DPDCHs | M | | 9.2.2.24e | | – | |
| >Puncture Limit | M | | 9.2.1.46 | | – | |
| >E-TFCS Information | M | | 9.2.2.4G | | – | |
| >E-TTI | M | | 9.2.2.4J | | – | |
| >E-DPCCH Power Offset | M | | 9.2.2.4K | | – | |
| >E-RGCH 2-Index-Step Threshold | M | | 9.2.2.64 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >E-RGCH 3-Index-Step Threshold | M | | 9.2.2.65 | | – | |
| >HARQ Info for E-DCH | M | | 9.2.2.66 | | – | |
| >HS-DSCH Configured Indicator | M | | 9.2.2.19C | | – | |
| > Minimum Reduced E-DPDCH Gain Factor | O | | 9.2.2.102 | | YES | ignore |
| E-DCH FDD Information | C-EDCHInfo | | 9.2.2.4B | | YES | reject |
| Serving E-DCH RL | O | | 9.2.2.38C | | YES | reject |
| **F-DPCH Information** | | *0..1* | | | YES | reject |
| **>Power Offset Information** | | *1* | | | – | |
| >>PO2 | M | | Power Offset 9.2.2.30 | This IE shall be ignored by DRNS. | – | |
| >FDD TPC Downlink Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.21A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.21a | | – | |
| >F-DPCH Slot Format Support Request | O | | 9.2.2.86 | | YES | reject |
| >F-DPCH Slot Format | O | | 9.2.2.85 | | YES | Ignore |
| Initial DL DPCH Timing Adjustment Allowed | O | | 9.2.2.21b | | YES | ignore |
| DCH Indicator For E-DCH-HSDPA Operation | O | | 9.2.2.67 | | YES | reject |
| Serving Cell Change CFN | O | | CFN 9.2.1.9 | | YES | reject |
| Continuous Packet Connectivity DTX-DRX Information | O | | 9.2.2.72 | | YES | reject |
| Continuous Packet Connectivity HS-SCCH less Information | O | | 9.2.2.74 | | YES | reject |
| Extended SRNC-ID | O | | Extended RNC-ID 9.2.1.50a | The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |
| **Additional HS Cell Information RL Setup** | | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | reject |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >HS-DSCH Secondary Serving Information | M | | 9.2.2.19aa | | – | |
| UE Aggregate Maximum Bit Rate | O | | 9.2.1.137 | | YES | ignore |
| **Additional E-DCH Cell Information RL Setup Req** | | *0..1* | | For E-DCH on multiple frequencies in this DRNS. | YES | reject |
| >Multicell E-DCH Transport Bearer Mode | M | | 9.2.2.113 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **>Additional E-DCH Cell Information Setup** | | *1..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| >> Additional E-DCH FDD Setup Information | M | | 9.2.2.110 | | - | |

| Condition | Explanation |
|---|---|
| CodeLen | The IE shall be present if *Min UL Channelisation Code length* IE equals to 4 |
| SlotFormat | The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| NotFirstRL | The IE shall be present if the RL is not the first one in the *RL Information* IE. |
| Diversity mode | The IE shall be present if *Diversity Mode* IE in *UL DPCH Information* IE is not equal to “none”. |
| InfoHSDSCH | This IE shall be present if *HS-DSCH Information* IE is present. |
| EDCHInfo | This IE shall be present if *E-DPCH Information* IE is present. |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE. |
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.3.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| SRNC-ID | M | | RNC-ID 9.2.1.50 | If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored. | YES | reject |
| S-RNTI | M | | 9.2.1.53 | | YES | reject |
| D-RNTI | O | | 9.2.1.24 | | YES | reject |
| **UL Physical Channel Information** | | *1* | | | YES | reject |
| >Maximum Number of Timeslots | M | | 9.2.3.3A | For the UL | – | |
| >Minimum Spreading Factor | M | | 9.2.3.4A | For the UL | – | |
| >Maximum Number of UL Physical Channels per Timeslot | M | | 9.2.3.3B | | – | |
| >Support of 8PSK | O | | 9.2.3.7H | Applicable to 1.28Mcps TDD only | YES | ignore |
| >Minimum Spreading Factor 7.68Mcps | O | | 9.2.3.19 | Applicable to 7.68Mcps TDD only | YES | ignore |
| **DL Physical Channel Information** | | *1* | | | YES | reject |
| >Maximum Number of Timeslots | M | | 9.2.3.3A | For the DL | – | |
| >Minimum Spreading Factor | M | | 9.2.3.4A | For the DL | – | |
| >Maximum Number of DL Physical Channels | M | | 9.2.3.3C | | – | |
| >Maximum Number of DL Physical Channels per Timeslot | O | | 9.2.3.3D | | YES | ignore |
| >Support of 8PSK | O | | 9.2.3.7H | Applicable to 1.28Mcps TDD only | YES | ignore |
| >Support of PLCCH | O | | 9.2.3.16 | Applicable to 1.28Mcps TDD only | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| >Minimum Spreading Factor 7.68Mcps | O | | 9.2.3.19 | Applicable to 7.68Mcps TDD only | YES | ignore |
| >Maximum Number of DL Physical Channels 7.68Mcps | O | | 9.2.3.20 | Applicable to 7.68Mcps TDD only | YES | ignore |
| >Maximum Number of DL Physical Channels per Timeslot 7.68Mcps | O | | 9.2.3.21 | Applicable to 7.68Mcps TDD only | YES | ignore |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL CCTrCH Information** | | *0..<maxnoofCCTrCHs>* | | For DCH and USCH | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TFCS | M | | 9.2.1.63 | For the UL. | – | |
| >TFCI Coding | M | | 9.2.3.11 | | – | |
| >Puncture Limit | M | | 9.2.1.46 | | – | |
| >TDD TPC Uplink Step Size | O | | 9.2.3.10a | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD | YES | reject |
| **DL CCTrCH Information** | | *0..<maxnoofCCTrCHs>* | | For DCH and DSCH | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TFCS | M | | 9.2.1.63 | For the DL. | – | |
| >TFCI Coding | M | | 9.2.3.11 | | – | |
| >Puncture Limit | M | | 9.2.1.46 | | – | |
| >TDD TPC Downlink Step Size | M | | 9.2.3.10 | | – | |
| **>TPC CCTrCH List** | | *0..<maxnoofCCTrCHs>* | | List of uplink CCTrCH which provide TPC | – | |
| >>TPC CCTrCH ID | M | | CCTrCH ID 9.2.3.2 | | – | |
| DCH Information | O | | DCH TDD Information 9.2.3.2A | | YES | reject |
| DSCH Information | O | | DSCH TDD Information 9.2.3.3a | | YES | reject |
| USCH Information | O | | 9.2.3.15 | | YES | reject |
| **RL Information** | | *1* | | | YES | reject |
| >RL ID | M | | 9.2.1.49 | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >Frame Offset | M | | 9.2.1.30 | | – | |
| >Special Burst Scheduling | M | | 9.2.3.7D | | – | |
| >Primary CCPCH RSCP | O | | 9.2.3.5 | | – | |
| >DL Time Slot ISCP Info | O | | 9.2.3.2D | Applicable to 3.84Mcps TDD and 7.68Mcps TDD only | – | |
| >DL Time Slot ISCP Info LCR | O | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | reject |
| >TSTD Support Indicator | O | | 9.2.3.13F | Applicable to 1.28Mcps TDD only | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.19Aa | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| **>UL Synchronisation Parameters LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. | YES | reject |
| >>Uplink Synchronisation Step Size | M | | 9.2.3.13J | | – | |
| >>Uplink Synchronisation Frequency | M | | 9.2.3.13I | | – | |
| >Primary CCPCH RSCP Delta | O | | 9.2.3.5a | | YES | ignore |
| >Idle Interval Configuration Indicator | O | | NULL | TDD only | YES | ignore |
| >Cell Portion LCR ID | O | | 9.2.3.73 | Applicable to 1.28Mcps TDD only | YES | ignore |
| Permanent NAS UE Identity | O | | 9.2.1.73 | | YES | ignore |
| HS-DSCH Information | O | | HS-DSCH TDD Information 9.2.3.3aa | | YES | reject |
| HS-PDSCH RL ID | C – InfoHSDSCH | | RL ID 9.2.1.49 | | YES | reject |
| PDSCH-RL-ID | O | | RL ID 9.2.1.49 | | YES | ignore |
| **MBMS Bearer Service List** | | *0..<maxnoofMBMS>* | | | GLOBAL | notify |
| >TMGI | M | | 9.2.1.80 | | – | |
| **E-DCH Information** | | 0..1 | | 3.84Mcps TDD only | YES | reject |
| >E-PUCH Information | M | | 9.2.3.36 | | – | |
| >E-TFCS Information TDD | M | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows Information TDD | M | | 9.2.3.38 | | – | |
| >E-DCH TDD Information | M | | 9.2.3.40 | | – | |
| E-DCH Serving RL | O | | 9.2.1.49 | TDD only | YES | reject |
| **E-DCH Information 7.68Mcps** | | 0..1 | | 7.68Mcps TDD only | YES | reject |
| >E-PUCH Information | M | | 9.2.3.36 | | – | |
| >E-TFCS Information TDD | M | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows Information TDD | M | | 9.2.3.38 | | – | |
| >E-DCH TDD Information 7.68Mcps | M | | 9.2.3.51 | | – | |
| **E-DCH Information 1.28Mcps** | | 0..1 | | 1.28Mcps TDD only | YES | reject |
| >E-PUCH Information LCR | M | | 9.2.3.36a | | – | |
| >E-TFCS Information TDD | M | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows Information TDD | M | | 9.2.3.38 | | – | |
| >E-DCH TDD Information LCR | M | | 9.2.3.40a | | – | |
| Extended SRNC-ID | O | | Extended RNC-ID 9.2.1.50a | The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |
| Continuous Packet Connectivity DRX Information LCR | O | | 9.2.3.61 | 1.28 Mcps TDD only | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| HS-DSCH Semi-Persistent scheduling Information LCR | O | | 9.2.3.64 | 1.28 Mcps TDD only | YES | reject |
| E-DCH Semi-Persistent scheduling Information LCR | O | | 9.2.3.66 | 1.28 Mcps TDD only | YES | reject |
| RNTI Allocation Indicator | O | | ENUMERATED (True) | 1.28 Mcps TDD only | YES | ignore |
| DCH Measurement Type indicator | O | | 9.2.3.76 | 1.28 Mcps TDD only | YES | reject |

| Condition | Explanation |
|---|---|
| InfoHSDSCH | This IE shall be present if *HS-DSCH Information* IE is present. |

| Range bound | Explanation |
|---|---|
| *maxnoofCCTrCHs* | Maximum number of CCTrCH for one UE. |
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |

## 9.1.4 RADIO LINK SETUP RESPONSE

### 9.1.4.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | O | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | O | | 9.2.1.11 | | YES | ignore |
| **RL Information Response** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >RL Set ID | M | | 9.2.2.35 | | – | |
| >URA Information | O | | 9.2.1.70B | | – | |
| >SAI | M | | 9.2.1.52 | | – | |
| >Cell GAI | O | | 9.2.1.5A | | – | |
| >UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >Received Total Wide Band Power | M | | 9.2.2.35A | | – | |
| >Not Used | O | | NULL | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | – | |
| >CHOICE *Diversity Indication* | M | | | | – | |
| *>>Combining* | | | | | – | |
| >>>RL ID | M | | 9.2.1.49 | Reference RL ID for the combining | – | |
| >>>DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >>>E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| *>>Non Combining or First RL* | | | | | – | |
| >>>DCH Information Response | M | | 9.2.1.16A | | – | |
| >>>E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| >SSDT Support Indicator | M | | 9.2.2.43 | | – | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Closed Loop Timing Adjustment Mode | O | | 9.2.2.3A | | – | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Primary Scrambling Code | O | | 9.2.1.45 | | – | |
| >UL UARFCN | O | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] | – | |
| >DL UARFCN | O | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] | – | |
| >Primary CPICH Power | M | | 9.2.1.44 | | – | |
| >Not Used | O | | NULL | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >PC Preamble | M | | 9.2.2.27a | | – | |
| >SRB Delay | M | | 9.2.2.39A | | – | |
| >Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| >DL Power Balancing Activation Indicator | O | | 9.2.2.10B | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.32A | | YES | ignore |
| >Secondary CPICH Information | O | | 9.2.2.38A | | YES | ignore |
| **>Active MBMS Bearer Service List** | | *0..<maxnoofActiveMBMS>* | | | GLOBAL | ignore |
| >>TMGI | M | | 9.2.1.80 | | – | |
| >>Transmission Mode | O | | 9.2.1.81 | | – | |
| >>Preferred Frequency Layer | O | | UARFCN 9.2.1.66 | | – | |
| >E-DCH RL Set ID | O | | RL Set ID 9.2.2.35 | | YES | ignore |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.4D | | YES | ignore |
| >Initial DL DPCH Timing Adjustment | O | | DL DPCH Timing Adjustment 9.2.2.9A | | YES | ignore |
| >F-DPCH Slot Format | O | | 9.2.2.85 | | YES | ignore |
| >Frame Offset | O | | 9.2.1.30 | | YES | ignore |
| >Chip Offset | O | | 9.2.2.1 | | YES | ignore |
| >Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| >HS-DSCH Preconfiguration Info | O | | 9.2.2.99 | | YES | ignore |
| >Non-Serving RL Preconfiguration Info | O | | 9.2.2.125 | | YES | ignore |
| Uplink SIR Target | O | | Uplink SIR 9.2.1.69 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| Continuous Packet Connectivity HS-SCCH less Information Response | O | | 9.2.2.75 | | YES | ignore |
| SixtyfourQAM DL Support Indicator | O | | 9.2.1.123 | | YES | ignore |
| **Additional HS Cell Information Response** | | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | ignore |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >HS-DSCH-RNTI | M | | 9.2.1.30P | | – | |
| >HS-DSCH FDD Secondary Serving Information | M | | 9.2.2.19ba | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Response | | | | | | |
| >SixtyfourQAM DL Support Indicator | O | | 9.2.1.123 | | – | |
| **Additional E-DCH Cell Information Response** | | *0..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | EACH | ignore |
| >Additional E-DCH FDD Information Response | M | | 9.2.2.120 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE. |
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.4.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | O | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | O | | 9.2.1.11 | | YES | ignore |
| **RL Information Response** | | *0..1* | | Mandatory for 3.84Mcps TDD , not applicable to 1.28Mcps TDD or 7.68Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >URA Information | O | | 9.2.1.70B | | – | |
| >SAI | M | | 9.2.1.52 | | – | |
| >Cell GAI | O | | 9.2.1.5A | | – | |
| >UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >UL Time Slot ISCP Info | M | | 9.2.3.13D | | – | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >UARFCN | O | | 9.2.1.66 | Corresponds to Nt in ref. [7] | – | |
| >Cell Parameter ID | O | | 9.2.1.8 | | – | |
| >Sync Case | O | | 9.2.1.54 | | – | |
| >SCH Time Slot | C-Case2 | | 9.2.1.51 | | – | |
| >SCTD Indicator | O | | 9.2.1.78 | | – | |
| >PCCPCH Power | M | | 9.2.1.43 | | – | |
| >Timing Advance Applied | M | | 9.2.3.12A | | – | |
| >Alpha Value | M | | 9.2.3.a | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | – | |
| >Synchronisation Configuration | M | | 9.2.3.7E | | – | |
| >Secondary CCPCH Info TDD | O | | 9.2.3.7B | | – | |
| **>UL CCTrCH Information** | | *0..<maxnoofCCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>UL DPCH Information** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>UL Timeslot Information | M | | 9.2.3.13C | | – | |
| >>Uplink SIR Target CCTrCH | O | | Uplink SIR 9.2.1.69 | | YES | ignore |
| **>DL CCTrCH Information** | | *0..<maxnoofCCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH Information** | | *0..1* | | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information | M | | 9.2.3.2C | | | |
| >>CCTrCH Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >>CCTrCH Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |
| >DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| **>DSCH Information Response** | | *0 .. <maxnoof DSCHs>* | | | GLOBAL | ignore |
| >>DSCH ID | M | | 9.2.3.3ae | | – | |
| >>DSCH Flow Control Information | M | | 9.2.3.3ag | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| **>USCH Information Response** | | *0 .. <maxnoof USCHs>* | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| >Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Time Slot for SCH | C-Case1 | | Time Slot 9.2.1.56 | | YES | ignore |
| >Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| Uplink SIR Target | M | | Uplink SIR 9.2.1.69 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| **RL Information Response LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >URA Information | M | | 9.2.1.70B | | – | |
| >SAI | M | | 9.2.1.52 | | – | |
| >Cell GAI | O | | 9.2.1.5A | | – | |
| >UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >UL Time Slot ISCP Info LCR | M | | 9.2.3.13H | | – | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >UARFCN | O | | 9.2.1.66 | Corresponds to Nt in ref. [7] | – | |
| >Cell Parameter ID | O | | 9.2.1.8 | | – | |
| >SCTD Indicator | O | | 9.2.1.78 | | – | |
| >PCCPCH Power | M | | 9.2.1.43 | | – | |
| >Alpha Value | M | | 9.2.3.a | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | – | |
| >Synchronisation Configuration | M | | 9.2.3.7E | | – | |
| >Secondary CCPCH Info TDD LCR | O | | 9.2.3.7F | | – | |
| **>UL CCTrCH Information LCR** | | *0..<maxnoofCCTrCHsLCR>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>UL DPCH Information LCR** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>UL Timeslot Information LCR | M | | 9.2.3.13G | | – | |
| >>Uplink SIR Target CCTrCH | O | | Uplink SIR 9.2.1.69 | | YES | ignore |
| **>DL CCTrCH Information LCR** | | *0..<maxnoofCCTrCHsLCR>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH Information LCR** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information LCR | M | | 9.2.3.2E | | – | |
| >>>TSTD Indicator | M | | 9.2.3.13E | | – | |
| >DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| **>DSCH Information Response LCR** | | *0 .. <maxnoofDSCHsLCR>* | | | GLOBAL | ignore |
| >>DSCH ID | M | | 9.2.3.3ae | | – | |
| >>DSCH Flow Control Information | M | | 9.2.3.3ag | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| **>USCH Information Response LCR** | | *0 .. <maxnoofUSCHsLCR>* | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| >Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| >Uplink Timing Advance Control LCR | M | | 9.2.3.13K | | YES | ignore |
| >PowerControl GAP | O | | INTEGER (1..255) | Unit: umber of subframes Applicable to 1.28Mcps TDD only | YES | ignore |
| >SixtyfourQAM DL Support Indicator | O | | 9.2.1.123 | Applicable to 1.28Mcps TDD only | YES | ignore |
| >Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| >Idle Interval Information | O | | 9.2.3.60 | TDD only | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| HS-DSCH Information Response | O | | HS-DSCH TDD Information Response 9.2.3.3ab | | YES | ignore |
| DSCH-RNTI | O | | 9.2.3.3ah | | YES | ignore |
| **Active MBMS Bearer Service List** | | *0..<maxnoofActiveMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| >Transmission Mode | O | | 9.2.1.81 | | – | |
| >Preferred Frequency Layer | O | | UARFCN 9.2.1.66 | | – | |
| **RL Information Response 7.68Mcps** | | *0..1* | | Mandatory for 7.68Mcps TDD , not applicable to 1.28Mcps TDD or 3.84Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >URA Information | O | | 9.2.1.70B | | – | |
| >SAI | M | | 9.2.1.52 | | – | |
| >Cell GAI | O | | 9.2.1.5A | | – | |
| >UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >UL Time Slot ISCP Info | M | | 9.2.3.13D | | – | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >UARFCN | O | | UARFCN 9.2.1.66 | Corresponds to Nt in ref. [7] | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >Cell Parameter ID | O | | 9.2.1.8 | | – | |
| >Sync Case | O | | 9.2.1.54 | | – | |
| >SCH Time Slot | C-Case2 | | 9.2.1.51 | | – | |
| >SCTD Indicator | O | | 9.2.1.78 | | – | |
| >PCCPCH Power | M | | 9.2.1.43 | | – | |
| >Timing Advance Applied | M | | 9.2.3.12A | | – | |
| >Alpha Value | M | | 9.2.3.a | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | – | |
| >Synchronisation Configuration | M | | 9.2.3.7E | | – | |
| >Secondary CCPCH Info 7.68Mcps TDD | O | | 9.2.3.22 | | – | |
| **>UL CCTrCH Information 7.68 Mcps** | | *0..<maxnoofCCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>UL DPCH Information** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>UL Timeslot Information 7.68Mcps | M | | 9.2.3.26 | | – | |
| >>Uplink SIR Target CCTrCH | O | | Uplink SIR 9.2.1.69 | | – | |
| **>DL CCTrCH Information 7.68 Mcps** | | *0..<maxnoofCCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH Information** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information 7.68Mcps | M | | 9.2.3.28 | | – | |
| >>CCTrCH Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | – | |
| >>CCTrCH Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | – | |
| >DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| **>DSCH Information Response 7.68 Mcps** | | *0 .. <maxnoofDSCHs>* | | | GLOBAL | ignore |
| >>DSCH ID | M | | 9.2.3.3ae | | – | |
| >>DSCH Flow Control Information | M | | 9.2.3.3ag | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| **>USCH Information Response 7.68 Mcps** | | *0 .. <maxnoofUSCHs>* | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| >Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >Cell GA Additional Shapes | O | | 9.2.1.5B | | – | |
| >HCS Prio | O | | 9.2.1.30N | | – | |
| >Time Slot for SCH | C-Case1 | | Time Slot 9.2.1.56 | | – | |
| >Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| E-DCH Information Response | O | | E-DCH TDD Information Response 9.2.3.41 | 3.84Mcps TDD only | YES | ignore |
| E-DCH Information Response 7.68Mcps | O | | E-DCH TDD Information Response 7.68Mcps 9.2.3.52 | 7.68Mcps TDD only | YES | ignore |
| E-DCH Information Response 1.28Mcps | O | | E-DCH TDD Information Response 1.28Mcps 9.2.3.41a | 1.28Mcps TDD only | YES | ignore |
| Continuous Packet Connectivity DRX Information Response LCR | O | | 9.2.3.63 | 1.28 Mcps TDD only | YES | ignore |
| HS-DSCH Semi-Persistent scheduling Information Response LCR | O | | 9.2.3.68 | 1.28 Mcps TDD only | YES | ignore |
| E-DCH Semi-Persistent scheduling Information Response LCR | O | | 9.2.3.69 | 1.28 Mcps TDD only | YES | ignore |
| E-RNTI for FACH | O | | E-RNTI 9.2.1.94 | 1.28 Mcps TDD only | YES | ignore |
| H-RNTI for FACH | O | | HS-DSCH-RNTI 9.2.1.30P | 1.28 Mcps TDD only | YES | ignore |
| DCH Measurement Occasion Information | O | | 9.2.3.75 | 1.28 Mcps TDD only | YES | reject |

| Condition | Explanation |
|---|---|
| Case2 | The IE shall be present if *Sync Case* IE is equal to “Case2”. |
| Case1 | This IE shall be present if *Sync Case* IE is equal to “Case1”. |

| Range bound | Explanation |
|---|---|
| *maxnoofDSCHs* | Maximum number of DSCHs for one UE for 3.84Mcps TDD or 7.68Mcps TDD. |
| *maxnoofUSCHs* | Maximum number of USCHs for one UE for 3.84Mcps TDD or 7.68Mcps TDD. |
| *maxnoofCCTrCHs* | Maximum number of CCTrCH for one UE for 3.84Mcps TDD or 7.68Mcps TDD. |
| *maxnoofDSCHsLCR* | Maximum number of DSCHs for one UE for 1.28Mcps TDD. |
| *maxnoofUSCHsLCR* | Maximum number of USCHs for one UE for 1.28Mcps TDD. |
| *maxnoofCCTrCHsLCR* | Maximum number of CCTrCH for one UE for 1.28Mcps TDD. |
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |

## 9.1.5 RADIO LINK SETUP FAILURE

### 9.1.5.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | O | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | O | | 9.2.1.11 | | YES | ignore |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.5 | | – | |
| *>RL Specific* | | | | | – | |
| **>>Unsuccessful RL Information Response** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>Cause | M | | 9.2.1.5 | | – | |
| >>>Max UE DTX Cycle | C-DTX-CycleNotAvailable | | 9.2.2.87 | | YES | ignore |
| **>>Successful RL Information Response** | | *0..<maxnoofRLs-1>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| >>>URA Information | O | | 9.2.1.70B | | – | |
| >>>SAI | M | | 9.2.1.52 | | – | |
| >>>Cell GAI | O | | 9.2.1.5A | | – | |
| >>>UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >>>Received Total Wide Band Power | M | | 9.2.2.35A | | – | |
| >>>Not Used | O | | NULL | | – | |
| >>>DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | – | |
| >>>CHOICE *Diversity Indication* | M | | | | – | |
| *>>>>Combining* | | | | | – | |
| >>>>>RL ID | M | | 9.2.1.49 | Reference RL ID for the combining | – | |
| >>>>>DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >>>>>E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| *>>>>Non Combining or First RL* | | | | | – | |
| >>>>>DCH Information Response | M | | 9.2.1.16A | | – | |
| >>>>>E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| >>>SSDT Support Indicator | M | | 9.2.2.43 | | – | |
| >>>Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >>>Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >>>Closed Loop Timing Adjustment Mode | O | | 9.2.2.3A | | – | |
| >>>Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>>Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >>>Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >>>Primary CPICH Power | M | | 9.2.1.44 | | – | |
| >>>Primary Scrambling Code | O | | 9.2.1.45 | | – | |
| >>>UL UARFCN | O | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] | – | |
| >>>DL UARFCN | O | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] | – | |
| >>>Not Used | O | | NULL | | – | |
| >>>Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >>>Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >>>PC Preamble | M | | 9.2.2.27a | | – | |
| >>>SRB Delay | M | | 9.2.2.39A | | – | |
| >>>Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| >>>DL Power Balancing Activation Indicator | O | | 9.2.2.10B | | YES | ignore |
| >>>HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >>>Primary CPICH Usage For Channel Estimation | O | | 9.2.2.32A | | YES | ignore |
| >>>Secondary CPICH Information | O | | 9.2.2.38A | | YES | ignore |
| **>>>Active MBMS Bearer Service List** | | *0..<maxnoofActiveMBMS>* | | | GLOBAL | ignore |
| >>>>TMGI | M | | 9.2.1.80 | | – | |
| >>>>Transmission Mode | O | | 9.2.1.81 | | – | |
| >>>>Preferred Frequency Layer | O | | UARFCN 9.2.1.66 | | – | |
| >>>E-DCH RL Set ID | O | | RL Set ID 9.2.2.35 | | YES | ignore |
| >>>E-DCH FDD DL Control Channel Information | O | | 9.2.2.4D | | YES | ignore |
| >>>Initial DL DPCH Timing Adjustment | O | | DL DPCH Timing Adjustment 9.2.2.9A | | YES | ignore |
| >>>Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| >>> HS-DSCH Preconfiguration Info | O | | 9.2.2.99 | | YES | ignore |
| >>>F-DPCH Slot Format | O | | 9.2.2.85 | | YES | ignore |
| >>>Non-Serving RL Preconfiguration Info | O | | 9.2.2.125 | | YES | ignore |
| >>HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| >>HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| >>Continuous Packet | O | | 9.2.2.75 | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Connectivity HS-SCCH less Information Response | | | | | | |
| >>SixtyfourQAM DL Support Indicator | O | | 9.2.1.123 | | YES | ignore |
| **>>Additional HS Cell Information Response** | O | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | ignore |
| >>>HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >>>HS-DSCH-RNTI | M | | 9.2.1.30P | | – | |
| >>>HS-DSCH FDD Secondary Serving Information Response | M | | 9.2.2.19ba | | – | |
| >>>SixtyfourQAM DL Support Indicator | O | | 9.2.1.123 | | – | |
| **>>Additional E-DCH Cell Information Response** | | *0..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | EACH | ignore |
| >>>Additional E-DCH FDD Information Response | M | | 9.2.2.120 | | – | |
| Uplink SIR Target | O | | Uplink SIR 9.2.1.69 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

| Condition | Explanation |
|---|---|
| DTX-CycleNotAvailable | The IE shall be present if the *Cause* IE is set to Continuous Packet Connectivity UE DTX Cycle not Available ". |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE. |
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.5.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.5 | | – | |
| *>RL Specific* | | | | | – | |
| **>>Unsuccessful RL Information Response** | | *1* | | | YES | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>Cause | M | | 9.2.1.5 | | – | |
| >>SixtyfourQAM DL Support Indicator | O | | 9.2.1.123 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.6 RADIO LINK ADDITION REQUEST

### 9.1.6.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Uplink SIR Target | M | | Uplink SIR 9.2.1.69 | | YES | reject |
| **RL Information** | | *1..<maxnoofRLs-1>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.49 | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >Frame Offset | M | | 9.2.1.30 | | – | |
| >Chip Offset | M | | 9.2.2.1 | | – | |
| >Diversity Control Field | M | | 9.2.1.20 | | – | |
| >Primary CPICH Ec/No | O | | 9.2.2.32 | | – | |
| >Not Used | O | | NULL | | – | |
| >Transmit Diversity Indicator | O | | 9.2.2.48 | | – | |
| >DL Reference Power | O | | DL Power 9.2.1.21A | Power on DPCH or on F-DPCH | YES | ignore |
| >Enhanced Primary CPICH Ec/No | O | | 9.2.2.13I | | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.19Aa | | YES | reject |
| >RL specific E-DCH Information | O | | 9.2.2.35a | | YES | reject |
| >E-DCH RL Indication | O | | 9.2.2.4E | | YES | reject |
| >Synchronisation Indicator | O | | 9.2.2.45A | | YES | ignore |
| >HS-DSCH Preconfiguration Setup | O | | 9.2.2.100 | | YES | Ignore |
| >Non-Serving RL Preconfiguration Setup | O | | 9.2.2.124 | | YES | Ignore |
| Active Pattern Sequence Information | O | | 9.2.2A | Either all the already active Transmission Gap Sequence(s) are addressed (Transmission Gap Pattern sequence shall overlap with the existing one) or none of the transmission gap sequences is activated. | YES | reject |
| DPC Mode | O | | 9.2.2.12A | | YES | reject |
| Permanent NAS UE Identity | O | | 9.2.1.73 | | YES | ignore |
| Serving E-DCH RL | O | | 9.2.2.38C | | YES | reject |
| Initial DL DPCH Timing Adjustment Allowed | O | | 9.2.2.21b | | YES | ignore |
| HS-DSCH Serving Cell Change Information | O | | 9.2.2.19f | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| Serving Cell Change CFN | O | | CFN 9.2.1.9 | | YES | reject |
| **E-DPCH Information** | | *0..1* | | | YES | reject |
| >Maximum Set of E-DPDCHs | M | | 9.2.2.24e | | – | |
| >Puncture Limit | M | | 9.2.1.46 | | – | |
| >E-TFCS Information | M | | 9.2.2.4G | | – | |
| >E-TTI | M | | 9.2.2.4J | | – | |
| >E-DPCCH Power Offset | M | | 9.2.2.4K | | – | |
| >E-RGCH 2-Index-Step Threshold | M | | 9.2.2.64 | | – | |
| >E-RGCH 3-Index-Step Threshold | M | | 9.2.2.65 | | – | |
| >HARQ Info for E-DCH | M | | 9.2.2.66 | | – | |
| >HS-DSCH Configured Indicator | M | | 9.2.2.19C | | YES | reject |
| > Minimum Reduced E-DPDCH Gain Factor | O | | 9.2.2.102 | | YES | ignore |
| E-DCH FDD Information | C-EDCHInfo | | 9.2.2.4B | | YES | reject |
| **Additional HS Cell Information RL Addition** | | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | reject |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >HS-DSCH FDD Secondary Serving Information | M | | 9.2.2.19aa | | – | |
| UE Aggregate Maximum Bit Rate | O | | 9.2.1.137 | | YES | ignore |
| **Additional E-DCH Cell Information RL Add Req** | | *0..1* | | For E-DCH on multiple frequencies in this DRNS. | YES | reject |
| >CHOICE *Setup Or Addition Of E-DCH On Secondary UL Frequency* | M | | | | YES | reject |
| *>> Setup* | | | | Used when the secondary UL frequency does not exist or is not configured with E-DCH in the current UE context | – | |
| >>>Multicell E-DCH Transport Bearer Mode | M | | 9.2.2.113 | | – | |
| **>>>Additional E-DCH Cell Information Setup** | | *1..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| >>>> Additional E-DCH FDD Setup Information | M | | 9.2.2.110 | | – | |
| *>> Addition* | | | | Used when | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | there exist additional E-DCH RLs in the current UE context | | |
| **>>>Additional E-DCH Cell Information Addition** | | *1..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| **>>>>UL DPCH Information** | | *1* | | | – | |
| >>>>> Uplink SIR Target | M | | Uplink SIR 9.2.1.69 | | – | |
| >>>> Additional E-DCH RL Specific Information To Add | M | | 9.2.2.116 | | – | |
| >>>> Additional E-DCH FDD Information | O | | 9.2.2.112 | | – | |
| >>>> Multicell E-DCH Information | O | | 9.2.2.114 | | YES | ignore |

| Condition | Explanation |
|---|---|
| EDCHInfo | This IE shall be present if *E-DPCH Information* IE is present. |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of radio links for one UE. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.6.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information** | | *1* | | | YES | reject |
| >RL ID | M | | 9.2.1.49 | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >Frame Offset | M | | 9.2.1.30 | | – | |
| >Diversity Control Field | M | | 9.2.1.20 | | – | |
| >Primary CCPCH RSCP | O | | 9.2.3.5 | | – | |
| >DL Time Slot ISCP Info | O | | 9.2.3.2D | Applicable to 3.84Mcps TDD and 7.68Mcps TDD only | – | |
| >DL Time Slot ISCP Info LCR | O | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | reject |
| >RL Specific DCH Information | O | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.19Aa | | YES | reject |
| **>UL Synchronisation Parameters LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. | YES | reject |
| >>Uplink Synchronisation Step Size | M | | 9.2.3.13J | | – | |
| >>Uplink Synchronisation Frequency | M | | 9.2.3.13I | | – | |
| > Primary CCPCH RSCP Delta | O | | 9.2.3.5a | | YES | ignore |
| > Idle Interval Configuration Indicator | O | | NULL | TDD only | YES | ignore |
| Permanent NAS UE Identity | O | | 9.2.1.73 | | YES | ignore |
| **UL CCTrCH Information** | | *0..< maxnoofCCTrCHs >* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TDD TPC Uplink Step Size | O | | 9.2.3.10a | Applicable to 1.28Mcps TDD only | – | |
| **DL CCTrCH Information** | | *0..< maxnoofCCTrCHs >* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TDD TPC Downlink Step Size | O | | 9.2.3.10 | | – | |
| HS-DSCH Information | O | | HS-DSCH TDD Information 9.2.3.3aa | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.49 | | YES | reject |
| **E-DCH Information** | | 0..1 | | 3.84Mcps TDD only | YES | reject |
| >E-PUCH Information | M | | 9.2.3.36 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >E-TFCS Information TDD | M | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows Information TDD | M | | 9.2.3.38 | | – | |
| >E-DCH TDD Information | M | | 9.2.3.40 | | – | |
| E-DCH Serving RL | O | | 9.2.1.49 | 3.84Mcps TDD only | YES | reject |
| **E-DCH Information 7.68Mcps** | | 0..1 | | 7.68Mcps TDD only | YES | reject |
| >E-PUCH Information | M | | 9.2.3.36 | | – | |
| >E-TFCS Information TDD | M | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows Information TDD | M | | 9.2.3.38 | | – | |
| >E-DCH TDD Information 7.68Mcps | M | | 9.2.3.51 | | – | |
| **E-DCH Information 1.28Mcps** | | 0..1 | | 1.28Mcps TDD only | YES | reject |
| >E-PUCH Information LCR | M | | 9.2.3.36a | | – | |
| >E-TFCS Information TDD | M | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows Information TDD | M | | 9.2.3.38 | | – | |
| >E-DCH TDD Information LCR | M | | 9.2.3.40a | | – | |
| Continuous Packet Connectivity DRX Information LCR | O | | 9.2.3.61 | 1.28 Mcps TDD only | YES | reject |
| HS-DSCH Semi-Persistent scheduling Information LCR | O | | 9.2.3.64 | 1.28 Mcps TDD only | YES | reject |
| E-DCH Semi-Persistent scheduling Information LCR | O | | 9.2.3.66 | 1.28 Mcps TDD only | YES | reject |
| DCH Measurement Type indicator | O | | 9.2.3.76 | 1.28 Mcps TDD only | YES | reject |

| Range bound | Explanation |
|---|---|
| *maxnoofCCTrCHs* | Maximum number of CCTrCH for one UE. |

## 9.1.7 RADIO LINK ADDITION RESPONSE

### 9.1.7.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information Response** | | *1..<maxnoof RLs-1>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >RL Set ID | M | | 9.2.2.35 | | – | |
| >URA Information | O | | 9.2.1.70B | | – | |
| >SAI | M | | 9.2.1.52 | | – | |
| >Cell GAI | O | | 9.2.1.5A | | – | |
| >UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >Received Total Wide Band Power | M | | 9.2.2.35A | | – | |
| >Not Used | O | | NULL | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >CHOICE *Diversity Indication* | M | | | | – | |
| >>*Combining* | | | | | – | |
| >>>RL ID | M | | 9.2.1.49 | Reference RL ID | – | |
| >>>DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >>>E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| >>*Non Combining* | | | | | – | |
| >>>DCH Information Response | M | | 9.2.1.16A | | – | |
| >>>E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| >SSDT Support Indicator | M | | 9.2.2.43 | | – | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Closed Loop Timing Adjustment Mode | O | | 9.2.2.3A | | – | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >PC Preamble | M | | 9.2.2.27a | | – | |
| >SRB Delay | M | | 9.2.2.39A | | – | |
| >Primary CPICH Power | M | | 9.2.1.44 | | – | |
| >Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| >DL Power Balancing Activation Indicator | O | | 9.2.2.10B | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| **>Active MBMS Bearer** | | *0..<maxnoof* | | | GLOBAL | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Service List** | | *ActiveMBMS>* | | | | |
| >>TMGI | M | | 9.2.1.80 | | – | |
| >>Transmission Mode | O | | 9.2.1.81 | | – | |
| >>Preferred Frequency Layer | O | | UARFCN 9.2.1.66 | | – | |
| >E-DCH RL Set ID | O | | RL Set ID 9.2.2.35 | | YES | ignore |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.4D | | YES | ignore |
| >Initial DL DPCH Timing Adjustment | O | | DL DPCH Timing Adjustment 9.2.2.9.A | | YES | ignore |
| >F-DPCH Slot Format | O | | 9.2.2.85 | | YES | ignore |
| >Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| >HS-DSCH Preconfiguration Info | O | | 9.2.2.99 | | YES | ignore |
| >Non-Serving RL Preconfiguration Info | O | | 9.2.2.125 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| HS-DSCH Serving Cell Change Information Response | O | | 9.2.2.19g | | YES | ignore |
| E-DCH Serving Cell Change Information Response | O | | 9.2.2.19h | | YES | ignore |
| MAC-hs Reset Indicator | O | | 9.2.1.34B | | YES | ignore |
| **Additional HS Cell Change Information Response** | | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | ignore |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >HS-DSCH Secondary Serving Cell Change Information Response | M | | 9.2.2.19ga | | – | |
| **Additional E-DCH Cell Information Response RL Add** | | *0..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | EACH | ignore |
| >Additional E-DCH FDD Information Response | O | | 9.2.2.120 | | – | |
| >Additional E-DCH Serving Cell Change Information response | O | | E-DCH Serving Cell Change Information Response 9.2.2.19h | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of radio links for one UE. |
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.7.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information Response** | | *0..1* | | Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD or 7.68Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >URA Information | O | | 9.2.1.70B | | – | |
| >SAI | M | | 9.2.1.52 | | – | |
| >Cell GAI | O | | 9.2.1.5A | | – | |
| >UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >UL Time Slot ISCP Info | M | | 9.2.3.13D | | – | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >PCCPCH Power | M | | 9.2.1.43 | | – | |
| >Timing Advance Applied | M | | 9.2.3.12A | | – | |
| >Alpha Value | M | | 9.2.3.a | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | – | |
| >Synchronisation Configuration | M | | 9.2.3.7E | | – | |
| >Secondary CCPCH Info TDD | O | | 9.2.3.7B | | – | |
| **>UL CCTrCH Information** | | *0..<maxnoof CCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>UL DPCH Information** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>UL Timeslot Information | M | | 9.2.3.13C | | – | |
| **>DL CCTrCH Information** | | *0..<maxnoof CCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH Information** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information | M | | 9.2.3.2C | | – | |
| >>CCTrCH Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >>CCTrCH Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | | power on DPCH | | |
| **>DCH Information** | | 0..1 | | | – | |
| >>CHOICE *Diversity Indication* | M | | | | – | |
| *>>>Combining* | | | | | – | |
| >>>>RL ID | M | | 9.2.1.49 | Reference RL | – | |
| >>>>DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| *>>>Non Combining* | | | | | – | |
| >>>>DCH Information Response | M | | 9.2.1.16A | | – | |
| **>DSCH Information Response** | | *0 .. <maxnoof DSCHs>* | | | GLOBAL | ignore |
| >>DSCH ID | M | | 9.2.3.3ae | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| >>DSCH Flow Control Information | M | | 9.2.3.3ag | | – | |
| >>CHOICE *Diversity Indication* | O | | | | – | |
| *>>>Non Combining* | | | | | – | |
| >>>>Binding ID | O | | 9.2.1.3 | | – | |
| >>>>Transport Layer Address | O | | 9.2.1.62 | | – | |
| **>USCH Information Response** | | *0 .. <maxnoof USCHs>* | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| >>CHOICE *Diversity Indication* | O | | | | – | |
| *>>>Non Combining* | | | | | – | |
| >>>>Binding ID | O | | 9.2.1.3 | | – | |
| >>>>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| **RL Information Response LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >URA Information | M | | 9.2.1.70B | | – | |
| >SAI | M | | 9.2.1.52 | | – | |
| >Cell GAI | O | | 9.2.1.5A | | – | |
| >UTRAN Access Point | O | | 9.2.1.70A | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Position | | | | | | |
| >UL Time Slot ISCP Info LCR | M | | 9.2.3.13H | | – | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >PCCPCH Power | M | | 9.2.1.43 | | – | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Alpha Value | M | | 9.2.3.a | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | – | |
| >Synchronisation Configuration | M | | 9.2.3.7E | | – | |
| >Secondary CCPCH Info TDD LCR | O | | 9.2.3.7F | | – | |
| **>UL CCTrCH Information LCR** | | *0..<maxnoofCCTrCHsLCR>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>UL DPCH Information LCR** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>UL Timeslot Information LCR | M | | 9.2.3.13G | | – | |
| **>DL CCTrCH Information LCR** | | *0..<maxnoofCCTrCHsLCR>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH Information LCR** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information LCR | M | | 9.2.3.2E | | – | |
| >>>TSTD Indicator | M | | 9.2.3.13E | | – | |
| >DCH Information Response | M | | 9.2.1.16A | | – | |
| **>DSCH Information Response LCR** | | *0 .. <maxnoofDSCHsLCR>* | | | GLOBAL | ignore |
| >>DSCH ID | M | | 9.2.3.3ae | | – | |
| >>DSCH Flow Control Information | M | | 9.2.3.3ag | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| **>USCH Information Response LCR** | | *0 .. <maxnoofUSCHsLCR>* | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>CHOICE *Diversity Indication* | O | | | | – | |
| >>>*Non Combining* | | | | | – | |
| >>>>Binding ID | O | | 9.2.1.3 | | – | |
| >>>>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Uplink Timing Advance Control LCR | M | | 9.2.3.13K | | YES | ignore |
| >UARFCN | O | | 9.2.1.66 | Applicable to 1.28Mcps TDD only. Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt 3GPP TS 25.105. | YES | ignore |
| >PowerControl GAP | O | | INTEGER (1..255) | Unit: umber of subframes Applicable to 1.28Mcps TDD only | YES | ignore |
| >Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| **RL Information Response 7.68Mcps** | | *0..1* | | Mandatory for 7.68Mcps TDD, not applicable to 1.28Mcps TDD or 3.84Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >URA Information | O | | 9.2.1.70B | | – | |
| >SAI | M | | 9.2.1.52 | | – | |
| >Cell GAI | O | | 9.2.1.5A | | – | |
| >UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >UL Time Slot ISCP Info | M | | 9.2.3.13D | | – | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >PCCPCH Power | M | | 9.2.1.43 | | – | |
| >Timing Advance Applied | M | | 9.2.3.12A | | – | |
| >Alpha Value | M | | 9.2.3.a | | – | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | – | |
| >Synchronisation | M | | 9.2.3.7E | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Configuration | | | | | | |
| >Secondary CCPCH Info 7.68Mcps TDD | O | | 9.2.3.22 | | – | |
| **>UL CCTrCH Information 7.68 Mcps** | | *0..<maxnoof CCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>UL DPCH Information 7.68 Mcps** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>UL Timeslot Information 7.68Mcps | M | | 9.2.3.26 | | – | |
| **>DL CCTrCH Information 7.68 Mcps** | | *0..<maxnoof CCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH Information 7.68 Mcps** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information 7.68Mcps | M | | 9.2.3.28 | | – | |
| >>CCTrCH Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | – | |
| >>CCTrCH Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | – | |
| **>DCH Information** | | 0..1 | | | – | |
| >>CHOICE *Diversity Indication* | M | | | | – | |
| >>>*Combining* | | | | | – | |
| >>>>RL ID | M | | 9.2.1.49 | Reference RL | – | |
| >>>>DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >>>*Non Combining* | | | | | – | |
| >>>>DCH Information Response | M | | 9.2.1.16A | | – | |
| **>DSCH Information Response 7.68 Mcps** | | *0 .. <maxnoof DSCHs>* | | | GLOBAL | ignore |
| >>DSCH ID | M | | 9.2.3.3ae | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| >>DSCH Flow Control Information | M | | 9.2.3.3ag | | – | |
| >>CHOICE *Diversity Indication* | O | | | | – | |
| >>>*Non Combining* | | | | | – | |
| >>>>Binding ID | O | | 9.2.1.3 | | – | |
| >>>>Transport Layer Address | O | | 9.2.1.62 | | – | |
| **>USCH Information Response 7.68 Mcps** | | *0 .. <maxnoof USCHs>* | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>CHOICE *Diversity Indication* | O | | | | – | |
| >>>*Non Combining* | | | | | – | |
| >>>>Binding ID | O | | 9.2.1.3 | | – | |
| >>>>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >Cell GA Additional Shapes | O | | 9.2.1.5B | | – | |
| >HCS Prio | O | | 9.2.1.30N | | – | |
| >Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| >Idle Interval Information | O | | 9.2.3.60 | TDD only | YES | ignore |
| **Active MBMS Bearer Service List** | | *0..<maxnoof ActiveMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| >Transmission Mode | O | | 9.2.1.81 | | – | |
| >Preferred Frequency Layer | O | | UARFCN 9.2.1.66 | | – | |
| HS-DSCH Information Response | O | | HS-DSCH TDD Information Response 9.2.3.3ab | | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| E-DCH Information Response | O | | E-DCH TDD Information Response 9.2.3.41 | 3.84Mcps TDD only | YES | ignore |
| E-DCH Information Response 7.68Mcps | O | | E-DCH TDD Information Response 7.68Mcps 9.2.3.52 | 7.68Mcps TDD only | YES | ignore |
| E-DCH Information Response 1.28Mcps | O | | E-DCH TDD Information Response 1.28Mcps 9.2.3.41a | 1.28Mcps TDD only | YES | ignore |
| Continuous Packet Connectivity DRX Information Response LCR | O | | 9.2.3.63 | 1.28 Mcps TDD only | YES | ignore |
| HS-DSCH Semi-Persistent scheduling Information Response LCR | O | | 9.2.3.68 | 1.28 Mcps TDD only | YES | ignore |
| E-DCH Semi-Persistent scheduling Information Response LCR | O | | 9.2.3.69 | 1.28 Mcps TDD only | YES | ignore |
| DCH Measurement Occasion Information | O | | 9.2.3.75 | 1.28 Mcps TDD only | YES | reject |

| Range Bound | Explanation |
|---|---|
| *maxnoofDSCHs* | Maximum number of DSCHs for one UE for 3.84Mcps TDD. |
| *maxnoofUSCHs* | Maximum number of USCHs for one UE for 3.84Mcps TDD. |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for one UE for 3.84Mcps TDD. |
| *maxnoofDSCHsLCR* | Maximum number of DSCHs for one UE for 1.28Mcps TDD. |
| *maxnoofUSCHsLCR* | Maximum number of USCHs for one UE for 1.28Mcps TDD. |
| *maxnoofCCTrCHsLCR* | Maximum number of CCTrCH for one UE for 1.28Mcps TDD. |
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |

## 9.1.8 RADIO LINK ADDITION FAILURE

### 9.1.8.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.5 | | – | |
| *>RL Specific* | | | | | – | |
| **>>Unsuccessful RL Information Response** | | *1..<maxnoof RLs-1>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>Cause | M | | 9.2.1.5 | | – | |
| **>>Successful RL Information Response** | | *0..<maxnoof RLs-2>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| >>>URA Information | O | | 9.2.1.70B | | – | |
| >>>SAI | M | | 9.2.1.52 | | – | |
| >>>Cell GAI | O | | 9.2.1.5A | | – | |
| >>>UTRAN Access Point Position | O | | 9.2.1.70A | | – | |
| >>>Received Total Wide Band Power | M | | 9.2.2.35A | | – | |
| >>>Not Used | O | | NULL | | – | |
| >>>DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >>>CHOICE *Diversity Indication* | M | | | | – | |
| *>>>>Combining* | | | | | – | |
| >>>>>RL ID | M | | 9.2.1.49 | Reference RL ID | – | |
| >>>>>DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >>>>>E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| *>>>>Non Combining* | | | | | – | |
| >>>>>DCH Information Response | M | | 9.2.1.16A | | – | |
| >>>>>E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| >>>SSDT Support Indicator | M | | 9.2.2.43 | | – | |
| >>>Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >>>Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | – | |
| >>>Closed Loop Timing Adjustment Mode | O | | 9.2.2.3A | | – | |
| >>>Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | – | |
| >>>Maximum DL TX Power | M | | DL Power 9.2.1.21A | | – | |
| >>>Minimum DL TX Power | M | | DL Power 9.2.1.21A | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>>Neighbouring UMTS Cell Information | O | | 9.2.1.41A | | – | |
| >>>Neighbouring GSM Cell Information | O | | 9.2.1.41C | | – | |
| >>>Primary CPICH Power | M | | 9.2.1.44 | | – | |
| >>>PC Preamble | M | | 9.2.2.27a | | – | |
| >>>SRB Delay | M | | 9.2.2.39A | | – | |
| >>>Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| >>>DL Power Balancing Activation Indicator | O | | 9.2.2.10B | | YES | ignore |
| >>>HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| **>>>Active MBMS Bearer Service List** | | *0..<maxnoof ActiveMBMS>* | | | GLOBAL | ignore |
| >>>>TMGI | M | | 9.2.1.80 | | – | |
| >>>>Transmission Mode | O | | 9.2.1.81 | | – | |
| >>>>Preferred Frequency Layer | O | | UARFCN 9.2.1.66 | | – | |
| >>>E-DCH RL Set ID | O | | RL Set ID 9.2.2.35 | | YES | ignore |
| >>>E-DCH FDD DL Control Channel Information | O | | 9.2.2.4D | | YES | ignore |
| >>>Initial DL DPCH Timing Adjustment | O | | DL DPCH Timing Adjustment 9.2.2.9.A | | YES | ignore |
| >>>Neighbouring E-UTRA Cell Information | O | | 9.2.1.41De | | YES | ignore |
| >>>HS-DSCH Preconfiguration Info | O | | 9.2.2.99 | | YES | ignore |
| >>>F-DPCH Slot Format | O | | 9.2.2.85 | | YES | ignore |
| >>>Non-Serving RL Preconfiguration Info | O | | 9.2.2.125 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| HS-DSCH Serving Cell Change Information Response | O | | 9.2.2.19g | | YES | Ignore |
| E-DCH Serving Cell Change Information Response | O | | 9.2.2.19h | | YES | Ignore |
| **Additional HS Cell Change Information Response** | | *0..<maxnoof HSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | Ignore |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >HS-DSCH Secondary Serving Cell Change Information Response | M | | 9.2.2.19ga | | – | |
| MAC-hs Reset Indicator | O | | 9.2.1.34B | | YES | ignore |
| **Additional E-DCH Cell Information Response RL Add** | | *0..<maxnoof EDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP | EACH | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | | release. | | |
| >Additional E-DCH FDD Information Response | O | | 9.2.2.120 | | – | |
| >Additional E-DCH Serving Cell Change Information response | O | | E-DCH Serving Cell Change Information Response 9.2.2.19h | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of radio links for one UE. |
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.8.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| >*General* | | | | | – | |
| >>Cause | M | | 9.2.1.5 | | – | |
| >*RL Specific* | | | | | – | |
| **>>Unsuccessful RL Information Response** | | *1* | | | YES | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>Cause | M | | 9.2.1.5 | | – | |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.9 RADIO LINK DELETION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information** | | *1..<maxnoofRLs>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.49 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of radio links for one UE |

## 9.1.10 RADIO LINK DELETION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.11 RADIO LINK RECONFIGURATION PREPARE

### 9.1.11.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL DPCH Information** | | *0..1* | | | YES | reject |
| >UL Scrambling Code | O | | 9.2.2.53 | | – | |
| >UL SIR Target | O | | Uplink SIR 9.2.1.69 | | – | |
| >Min UL Channelisation Code Length | O | | 9.2.2.25 | | – | |
| >Max Number of UL DPDCHs | C – CodeLen | | 9.2.2.24 | | – | |
| >Puncture Limit | O | | 9.2.1.46 | For the UL. | – | |
| >TFCS | O | | 9.2.1.63 | TFCS for the UL. | – | |
| >UL DPCCH Slot Format | O | | 9.2.2.52 | | – | |
| >Diversity Mode | O | | 9.2.2.8 | | – | |
| >Not Used | O | | NULL | | – | |
| >Not Used | O | | NULL | | – | |
| >UL DPDCH Indicator For E-DCH Operation | O | | 9.2.2.52A | | YES | reject |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.63 | TFCS for the DL. | – | |
| >DL DPCH Slot Format | O | | 9.2.2.9 | | – | |
| >Number of DL Channelisation Codes | O | | 9.2.2.26A | | – | |
| >TFCI Signalling Mode | O | | 9.2.2.46 | | – | |
| >TFCI Presence | C-SlotFormat | | 9.2.1.55 | | – | |
| >Multiplexing Position | O | | 9.2.2.26 | | – | |
| >Limited Power Increase | O | | 9.2.2.21A | | – | |
| **>DL DPCH Power Information** | | *0..1* | | | YES | reject |
| **>>Power Offset Information** | | *1* | | | – | |
| >>>PO1 | M | | Power Offset 9.2.2.30 | Power offset for the TFCI bits | – | |
| >>>PO2 | M | | Power Offset 9.2.2.30 | Power offset for the TPC bits | – | |
| >>>PO3 | M | | Power Offset 9.2.2.30 | Power offset for the pilot bits | – | |
| >>FDD TPC Downlink Step Size | M | | 9.2.2.16 | | – | |
| >>Inner Loop DL PC Status | M | | 9.2.2.21a | | – | |
| DCHs To Modify | O | | FDD DCHs To Modify 9.2.2.13C | | YES | reject |
| DCHs To Add | O | | DCH FDD Information 9.2.2.4A | | YES | reject |
| **DCHs To Delete** | | *0..<maxnoof DCHs>* | | | GLOBAL | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >DCH ID | M | | 9.2.1.16 | | – | |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | reject |
| >RL ID | M | | 9.2.1.49 | | – | |
| >Not Used | O | | NULL | | – | |
| >Not Used | O | | NULL | | – | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.48 | | – | |
| >DL Reference Power | O | | DL Power 9.2.1.21A | Power on DPCH | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.49A | | YES | ignore |
| >DL DPCH Timing Adjustment | O | | 9.2.2.9A | Required RL Timing Adjustment | YES | reject |
| >Phase Reference Update Indicator | O | | 9.2.2.27B | | YES | ignore |
| >RL specific E-DCH Information | O | | 9.2.2.35a | | YES | reject |
| >E-DCH RL Indication | O | | 9.2.2.4E | | YES | reject |
| >HS-DSCH Preconfiguration Setup | O | | 9.2.2.100 | | YES | ignore |
| >Non-Serving RL Preconfiguration Setup | O | | 9.2.2.124 | | YES | ignore |
| >Non-Serving RL Preconfiguration Removal | O | | Non-Serving RL Preconfiguration Setup 9.2.2.124 | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.47A | | YES | reject |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |
| HS-DSCH Information To Modify | O | | 9.2.1.30Q | | YES | reject |
| HS-DSCH MAC-d Flows To Add | O | | HS-DSCH MAC-d Flows Information 9.2.1.30OA | | YES | reject |
| HS-DSCH MAC-d Flows To Delete | O | | 9.2.1.30OB | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.49 | | YES | reject |
| **E-DPCH Information** | | 0..1 | | | YES | reject |
| >Maximum Set of E-DPDCHs | O | | 9.2.2.24e | | – | |
| >Puncture Limit | O | | 9.2.1.46 | | – | |
| >E-TFCS Information | O | | 9.2.2.4G | | – | |
| >E-TTI | O | | 9.2.2.4J | | – | |
| >E-DPCCH Power Offset | O | | 9.2.2.4K | | – | |
| >E-RGCH 2-Index-Step Threshold | O | | 9.2.2.64 | | – | |
| >E-RGCH 3-Index-Step Threshold | O | | 9.2.2.65 | | – | |
| >HARQ Info for E-DCH | O | | 9.2.2.66 | | – | |
| >HS-DSCH Configured Indicator | O | | 9.2.2.19C | | – | |
| > Minimum Reduced E- | O | | 9.2.2.102 | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| DPDCH Gain Factor | | | | | | |
| E-DCH FDD Information | O | | 9.2.2.4B | | YES | reject |
| E-DCH FDD Information to Modify | O | | 9.2.2.4F | | YES | reject |
| E-DCH MAC-d Flows to Add | O | | E-DCH MAC-d flows Information 9.2.2.4MC | | YES | reject |
| E-DCH MAC-d Flows to Delete | O | | 9.2.1.90 | | YES | reject |
| Serving E-DCH RL | O | | 9.2.2.38C | | YES | reject |
| **F-DPCH Information** | | *0..1* | | | YES | reject |
| **>Power Offset Information** | | *1* | | | – | |
| >>PO2 | M | | Power Offset 9.2.2.30 | This IE shall be ignored by DRNS. | – | |
| >FDD TPC Downlink Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.21A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.21a | | – | |
| >F-DPCH Slot Format Support Request | O | | 9.2.2.86 | | YES | reject |
| >F-DPCH Slot Format | O | | 9.2.2.85 | | YES | Ignore |
| Fast Reconfiguration Mode | O | | 9.2.2.70 | | YES | ignore |
| **CPC Information** | | *0..1* | | | YES | reject |
| >Continuous Packet Connectivity DTX-DRX Information | O | | 9.2.2.72 | | – | |
| >Continuous Packet Connectivity DTX-DRX Information To Modify | O | | 9.2.2.73 | | – | |
| >Continuous Packet Connectivity HS-SCCH less Information | O | | 9.2.2.74 | | – | |
| >Continuous Packet Connectivity HS-SCCH less Deactivate Indicator | O | | 9.2.2.75A | | YES | reject |
| **Additional HS Cell Information RL Reconf Prep** | | *0..<maxnoof HSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | reject |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >C-ID | O | | 9.2.1.6 | | – | |
| >HS-DSCH FDD Secondary Serving Information | O | | 9.2.2.19aa | | – | |
| >HS-DSCH FDD Secondary Serving Information To Modify | O | | 9.2.2.19bb | | – | |
| >HS-DSCH Secondary Serving Remove | O | | NULL | | – | |
| UE Aggregate Maximum Bit Rate | O | | 9.2.1.137 | | YES | ignore |
| **Additional E-DCH Cell Information RL Reconf Prep** | | *0..1* | | For E-DCH on multiple frequencies in this | YES | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | | DRNS. | | |
| >CHOICE *Setup, Configuration Change or Removal of E-DCH On Secondary UL Frequency* | M | | | | YES | reject |
| *>>Setup* | | | | Used when RLs on the secondary UL frequency does not exist or is not configured with E-DCH in the current UE context | – | |
| >>>Multicell E-DCH Transport Bearer Mode | M | | 9.2.2.113 | | – | |
| **>>>Additional E-DCH Cell Information Setup** | | *1..<maxnoof EDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| >>>>Additional E-DCH FDD Setup Information | M | | 9.2.2.110 | | – | |
| *>>Configuration Change* | | | | Used when RLs with additional E-DCH on the secondary UL frequency exist in the current UE context and the configuration is modified (adding new RLs or modification of existing RLs) | – | |
| **>>>Additional E-DCH Cell Information Configuration Change** | | *1..<maxnoof EDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| >>>>Additional E-DCH Configuration Change Information | M | | 9.2.2.111 | | – | |
| *>>Removal* | | | | Used when all RLs on the indicated secondary UL | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | | frequency is removed. | | |
| **>>>Additional E-DCH Cell Information Removal** | | *1..<maxnoof EDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| >>>>RL on Secondary UL Frequency | M | | ENUMERATED (Remove, ...) | Removal of all RL on secondary UL frequency | – | |

| Condition | Explanation |
|---|---|
| CodeLen | The IE shall be present only if the *Min UL Channelisation Code length* IE equals to 4. |
| SlotFormat | The IE shall only be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if *Diversity Mode* IE is present in the *UL DPCH Information* IE and is not equal to "none". |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for a UE. |
| *maxnoofRLs* | Maximum number of RLs for a UE. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.11.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL CCTrCH To Add** | | *0..<maxnoofCCTrCHs>* | | For DCH and USCH | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TFCS | M | | 9.2.1.63 | For the UL. | – | |
| >TFCI Coding | M | | 9.2.3.11 | | – | |
| >Puncture Limit | M | | 9.2.1.46 | | – | |
| >UL SIR Target | O | | Uplink SIR 9.2.1.69 | Mandatory for 1.28Mcps TDD; not applicable to 3.84Mcps TDD or 7.68Mcps TDD | YES | reject |
| >TDD TPC Uplink Step Size | O | | 9.2.3.10a | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD | YES | reject |
| **UL CCTrCH To Modify** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TFCS | O | | 9.2.1.63 | For the UL. | – | |
| >TFCI Coding | O | | 9.2.3.11 | | – | |
| >Puncture Limit | O | | 9.2.1.46 | | – | |
| >UL SIR Target | O | | Uplink SIR 9.2.1.69 | Applicable to 1.28Mcps TDD only | YES | reject |
| >TDD TPC Uplink Step Size | O | | 9.2.3.10a | Applicable to 1.28Mcps TDD only | YES | reject |
| **UL CCTrCH to Delete** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| **DL CCTrCH To Add** | | *0..<maxnoofCCTrCHs>* | | For DCH and DSCH | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TFCS | M | | 9.2.1.63 | For the DL. | – | |
| >TFCI Coding | M | | 9.2.3.11 | | – | |
| >Puncture Limit | M | | 9.2.1.46 | | – | |
| **>TPC CCTrCH List** | | *0..<maxnoCCTrCHs>* | | List of uplink CCTrCH which provide TPC | – | |
| >>TPC CCTrCH ID | M | | CCTrCH ID 9.2.3.2 | | – | |
| >TDD TPC Downlink Step Size | O | | 9.2.3.10 | | YES | reject |
| **DL CCTrCH To Modify** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TFCS | O | | 9.2.1.63 | For the DL. | – | |
| >TFCI Coding | O | | 9.2.3.11 | | – | |
| >Puncture Limit | O | | 9.2.1.46 | | – | |
| **>TPC CCTrCH List** | | *0..<maxnoCCTrCHs>* | | List of uplink CCTrCH which provide TPC | – | |
| >>TPC CCTrCH ID | M | | CCTrCH ID 9.2.3.2 | | – | |
| >TDD TPC Downlink Step Size | O | | 9.2.3.10 | | YES | reject |
| **DL CCTrCH to Delete** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| DCHs To Modify | O | | TDD DCHs To Modify 9.2.3.8B | | YES | reject |
| DCHs To Add | O | | DCH TDD Information 9.2.3.2A | | YES | reject |
| **DCHs to Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.16 | | – | |
| **DSCHs To Modify** | | *0..<maxnoofDSCHs>* | | | GLOBAL | reject |
| >DSCH ID | M | | 9.2.3.3ae | | – | |
| >CCTrCH ID | O | | 9.2.3.2 | DL CCTrCH in which the DSCH is mapped. | – | |
| >TrCH Source Statistics Descriptor | O | | 9.2.1.65 | | – | |
| >Transport Format Set | O | | 9.2.1.64 | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >Scheduling Priority Indicator | O | | 9.2.1.51A | | – | |
| >BLER | O | | 9.2.1.4 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| >Traffic Class | O | | 9.2.1.58A | | YES | ignore |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >TNL QoS | O | | 9.2.1.56A | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| DSCHs To Add | O | | DSCH TDD Information 9.2.3.3a | | YES | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DSCHs to Delete** | | *0..<maxnoofDSCHs>* | | | GLOBAL | reject |
| >DSCH ID | M | | 9.2.3.3ae | | – | |
| **USCHs To Modify** | | *0..<maxnoofUSCHs>* | | | GLOBAL | reject |
| >USCH ID | M | | 9.2.3.14 | | – | |
| >CCTrCH ID | O | | 9.2.3.2 | UL CCTrCH in which the USCH is mapped. | – | |
| >TrCH Source Statistics Descriptor | O | | 9.2.1.65 | | – | |
| >Transport Format Set | O | | 9.2.1.64 | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >Scheduling Priority Indicator | O | | 9.2.1.51A | | – | |
| >BLER | O | | 9.2.1.4 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| **>RB Info** | | *0..<maxnoofRB>* | | All Radio Bearers using this USCH | – | |
| >>RB Identity | M | | 9.2.3.5B | | – | |
| >Traffic class | O | | 9.2.1.58A | | YES | ignore |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >TNL QoS | O | | 9.2.1.56A | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| USCHs To Add | O | | USCH Information 9.2.3.15 | | YES | reject |
| **USCHs to Delete** | | *0..<maxnoofUSCHs>* | | | GLOBAL | reject |
| >USCH ID | M | | 9.2.3.14 | | – | |
| Primary CCPCH RSCP | O | | 9.2.3.5 | | YES | ignore |
| DL Time Slot ISCP Info | O | | 9.2.3.2D | Applicable to 3.84Mcps TDD and 7.68Mcps TDD only | YES | ignore |
| DL Time Slot ISCP Info LCR | O | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | ignore |
| HS-DSCH Information | O | | HS-DSCH TDD Information 9.2.3.3aa | | YES | reject |
| HS-DSCH Information To Modify | O | | 9.2.1.30Q | | YES | reject |
| HS-DSCH MAC-d Flows To Add | O | | HS-DSCH MAC-d Flows Information 9.2.1.30OA | | YES | reject |
| HS-DSCH MAC-d Flows To Delete | O | | 9.2.1.30OB | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.49 | | YES | reject |
| PDSCH-RL-ID | O | | RL ID 9.2.1.49 | | YES | ignore |
| **UL Synchronisation Parameters LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. | YES | ignore |
| >Uplink Synchronisation Step Size | M | | 9.2.3.13J | | – | |
| >Uplink Synchronisation Frequency | M | | 9.2.3.13I | | – | |
| **RL Information** | | *0..<maxnoofRLs.* | | | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >RL Specific DCH Information | O | | 9.2.1.49A | | – | |
| Primary CCPCH RSCP Delta | O | | 9.2.3.5a | | YES | ignore |
| **E-DCH Information** | | *0..1* | | 3.84Mcps TDD only | YES | reject |
| >E-PUCH Information | O | | 9.2.3.36 | | – | |
| >E-TFCS Information TDD | O | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows to Add | O | | 9.2.3.38 | | – | |
| >E-DCH MAC-d Flows to Delete | O | | 9.2.1.90 | | – | |
| >E-DCH TDD Information | O | | 9.2.3.40 | | – | |
| >E-DCH TDD Information to Modify | O | | 9.2.3.42 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| E-DCH Serving RL | O | | 9.2.1.49 | 3.84Mcps TDD only | YES | reject |
| **E-DCH Information 7.68Mcps** | | *0..1* | | 7.68Mcps TDD only | YES | reject |
| >E-PUCH Information | O | | 9.2.3.36 | | – | |
| >E-TFCS Information TDD | O | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows to Add | O | | 9.2.3.38 | | – | |
| >E-DCH MAC-d Flows to Delete | O | | 9.2.1.90 | | – | |
| >E-DCH TDD Information 7.68Mcps | O | | 9.2.3.51 | | – | |
| >E-DCH TDD Information to Modify | O | | 9.2.3.42 | | – | |
| **E-DCH Information 1.28Mcps** | | *0..1* | | 1.28Mcps TDD only | YES | reject |
| >E-PUCH Information LCR | O | | 9.2.3.36a | | – | |
| >E-TFCS Information TDD | O | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows to Add | O | | 9.2.3.38 | | – | |
| >E-DCH MAC-d Flows to Delete | O | | 9.2.1.90 | | – | |
| >E-DCH TDD Information LCR | O | | 9.2.3.40a | | – | |
| >E-DCH TDD Information to Modify | O | | 9.2.3.42 | | – | |
| Need for Idle Interval | O | | ENUMERATED (True, False) | TDD only | YES | ignore |
| **CPC Information** | | *0..1* | | 1.28Mcps TDD only | YES | reject |
| >Continuous Packet Connectivity DRX Information LCR | O | | 9.2.3.61 | | _ | |
| >Continuous Packet Connectivity DRX Information To Modify LCR | O | | 9.2.3.62 | | _ | |
| >HS-DSCH Semi-Persistent scheduling Information LCR | O | | 9.2.3.64 | | _ | |
| >HS-DSCH Semi-Persistent scheduling Information to modify LCR | O | | 9.2.3.65 | | _ | |
| >HS-DSCH Semi-Persistent scheduling Deactivate Indicator LCR | O | | 9.2.3.70 | | _ | |
| >E-DCH Semi-Persistent scheduling Information LCR | O | | 9.2.3.66 | | _ | |
| >E-DCH Semi-Persistent scheduling Information to modify LCR | O | | 9.2.3.67 | | _ | |
| >E-DCH Semi-Persistent scheduling Deactivate Indicator LCR | O | | 9.2.3.71 | | _ | |
| RNTI Allocation Indicator | O | | ENUMERATED (True) | 1.28 Mcps TDD only | YES | ignore |
| DCH Measurement Type indicator | O | | 9.2.3.76 | 1.28 Mcps TDD only | YES | reject |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for a UE. |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE. |
| *maxnoofDSCHs* | Maximum number of DSCHs for one UE. |
| *maxnoofUSCHs* | Maximum number of USCHs for one UE. |
| *maxnoofRLs* | Maximum number of RLs for one UE |

## 9.1.12 RADIO LINK RECONFIGURATION READY

### 9.1.12.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information Response** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >Maximum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Not Used | O | | NULL | | – | |
| >DL Code Information | O | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >Not Used | O | | NULL | | – | |
| >DL Power Balancing Updated Indicator | O | | 9.2.2.10D | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.32A | | YES | ignore |
| >Secondary CPICH Information Change | O | | 9.2.2.38B | | YES | ignore |
| >E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| >E-DCH RL Set ID | O | | RL Set ID 9.2.2.35 | | YES | ignore |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.4D | | YES | ignore |
| >F-DPCH Slot Format | O | | 9.2.2.85 | | YES | ignore |
| >HS-DSCH Preconfiguration Info | O | | 9.2.2.99 | | YES | ignore |
| >Non-Serving RL Preconfiguration Info | O | | 9.2.2.125 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| MAC-hs Reset Indicator | O | | 9.2.1.34B | | YES | ignore |
| Fast Reconfiguration Permission | O | | 9.2.2.71 | FDD only | YES | ignore |
| Continuous Packet Connectivity HS-SCCH less Information Response | O | | 9.2.2.75 | | YES | ignore |
| **Additional HS Cell Information Response** | | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >HS-DSCH-RNTI | M | | 9.2.1.30P | | – | |
| >HS-DSCH FDD Secondary Serving Information Response | M | | 9.2.2.19ba | | – | |
| **Additional E-DCH Cell Information Response RLReconf** | | *0..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | EACH | ignore |
| >Additional E-DCH FDD Information Response | O | | 9.2.2.120 | For new E-DCH Radio Links on secondary carrier | – | |
| >Additional Modified E-DCH FDD Information Response | O | | 9.2.2.121 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for a UE. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.12.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information Response** | | *0..<maxnoofRLs>* | | See Note 1 below | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >Maximum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Secondary CCPCH Info TDD | O | | 9.2.3.7B | Applicable to 3.84Mcps TDD only | – | |
| **>UL CCTrCH Information** | | *0..<maxnoofCCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>UL DPCH to be Added** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>> Rx Timing Deviation | O | | 9.2.3.7A | | – | |
| >>>UL Timeslot Information | M | | 9.2.3.13C | | – | |
| >>> Rx Timing Deviation 3.84 Mcps Extended | O | | 9.2.3.35 | | YES | Ignore |
| **>>UL DPCH to be Modified** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | O | | 9.2.3.7 | | – | |
| >>>Repetition Length | O | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | O | | 9.2.3.8A | | – | |
| **>>>UL Timeslot Information** | | *0..<maxnoOfTS>* | | Applicable to 3.84Mcps TDD only | – | |
| >>>>Time Slot | M | | 9.2.1.56 | | – | |
| >>>>Midamble Shift And Burst Type | O | | 9.2.3.4 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| **>>>>UL Code Information** | | *0..<maxnoOfDPCHs>* | | | – | |
| >>>>>DPCH ID | M | | 9.2.3.3 | | – | |
| >>>>>TDD Channelisation Code | O | | 9.2.3.8 | | – | |
| **>>>UL Timeslot Information LCR** | | *0..<maxnoOfTSLCR>* | | Applicable to 1.28Mcps TDD only | GLOBAL | ignore |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>>>Midamble | O | | 9.2.3.4C | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Shift LCR | | | | | | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| **>>>>UL Code Information LCR** | | *0..<maxnoOfDPCHLCR>* | | | GLOBAL | ignore |
| >>>>>DPCH ID | M | | 9.2.3.3 | | – | |
| >>>>>TDD Channelisation Code LCR | O | | 9.2.3.8a | | – | |
| >>>>> TDD UL DPCH Time Slot Format LCR | O | | 9.2.3.10C | | YES | reject |
| **>>>UL Timeslot Information 7.68Mcps** | | *0..<maxnoOfTS>* | | Applicable to 7.68Mcps TDD only | GLOBAL | ignore |
| >>>>Time Slot | M | | 9.2.1.56 | | – | |
| >>>>Midamble Shift And Burst Type 7.68Mcps | O | | 9.2.3.23 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| **>>>>UL Code Information 7.68Mcps** | | *0..<maxnoOfDPCHs768>* | | | GLOBAL | ignore |
| >>>>>DPCH ID | M | | 9.2.3.3 | | – | |
| >>>>>TDD Channelisation Code 7.68Mcps | O | | 9.2.3.25 | | – | |
| **>>UL DPCH to be Deleted** | | *0..<maxnoofDPCHs>* | | | GLOBAL | ignore |
| >>>DPCH ID | M | | 9.2.3.3 | | – | |
| **>>UL DPCH to be Added LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>UL Timeslot Information LCR | M | | 9.2.3.13G | | – | |
| **>>UL DPCH to be Added 7.68Mcps** | | *0..1* | | Applicable to 7.68Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>> Rx Timing Deviation 7.68Mcps | O | | 9.2.3.30 | | – | |
| >>>UL Timeslot Information 7.68Mcps | M | | 9.2.3.26 | | – | |
| **>DL CCTrCH Information** | | *0..<maxnoofCCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH to be Added** | | *0..1* | | Applicable to 3.84Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information | M | | 9.2.3.2C | | – | |
| **>>DL DPCH to be Modified** | | *0..1* | | | YES | ignore |
| >>>Repetition Period | O | | 9.2.3.7 | | – | |
| >>>Repetition Length | O | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | O | | 9.2.3.8A | | – | |
| **>>>DL Timeslot Information** | | *0..<maxnoOfTS>* | | Applicable to 3.84Mcps TDD only | – | |
| >>>>Time Slot | M | | 9.2.1.56 | | – | |
| >>>>Midamble Shift And Burst Type | O | | 9.2.3.4 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| **>>>>DL Code Information** | | *0..<maxnoOfDPCHs>* | | | – | |
| >>>>>DPCH ID | M | | 9.2.3.3 | | – | |
| >>>>>TDD Channelisation Code | O | | 9.2.3.8 | | – | |
| **>>>DL Timeslot Information LCR** | | *0..<maxnoOfTSLCR>* | | Applicable to 1.28Mcps TDD only | GLOBAL | ignore |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>>>Midamble Shift LCR | O | | 9.2.3.4C | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| **>>>>DL Code Information LCR** | | *0..<maxnoOfDPCHLCR>* | | | GLOBAL | ignore |
| >>>>>DPCH ID | M | | 9.2.3.3 | | – | |
| >>>>>TDD Channelisation Code LCR | O | | 9.2.3.8a | | – | |
| >>>>> TDD DL DPCH Time Slot Format LCR | O | | 9.2.3.8E | | YES | reject |
| >>>>Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >>>>Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |
| **>>>DL Timeslot Information 7.68Mcps** | | *0..<maxnoOfTS>* | | Applicable to 7.68Mcps TDD only | GLOBAL | ignore |
| >>>>Time Slot | M | | 9.2.1.56 | | – | |
| >>>>Midamble Shift And Burst Type 7.68Mcps | O | | 9.2.3.23 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| **>>>>DL Code Information** | | *0..<maxnoOfDPCHs768>* | | | – | |
| >>>>>DPCH ID 7.68Mcps | M | | 9.2.3.34 | | – | |
| >>>>>TDD Channelisation Code 7.68Mcps | O | | 9.2.3.25 | | – | |
| **>>DL DPCH to be** | | *0..<maxn* | | | GLOBAL | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Deleted** | | *oofDPCHs>* | | | | |
| >>>DPCH ID | M | | 9.2.3.3 | | – | |
| **>>DL DPCH to be Deleted 7.68Mcps TDD** | | *0..<maxnoofDPCHs768>* | | | GLOBAL | ignore |
| >>>DPCH ID 7.68Mcps | M | | 9.2.3.34 | | – | |
| **>>DL DPCH to be Added LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information LCR | M | | 9.2.3.2E | | – | |
| **>>DL DPCH to be Added 7.68Mcps** | | *0..1* | | Applicable to 7.68Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | – | |
| >>>Repetition Length | M | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | – | |
| >>>DL Timeslot Information 7.68Mcps | M | | 9.2.3.28 | | – | |
| >>CCTrCH Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH Applicable to 3.84Mcps TDD and 7.68Mcps TDD only | YES | ignore |
| >>CCTrCH Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed power on DPCH Applicable to 3.84Mcps TDD and 7.68Mcps TDD only | YES | ignore |
| >DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >**DSCH to be Added or Modified** | | *0 .. <maxnoof DSCHs>* | | | GLOBAL | ignore |
| >>DSCH ID | M | | 9.2.3.3ae | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| >>DSCH Flow Control Information | M | | 9.2.3.3ag | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| **>USCH to be Added or Modified** | | *0 .. <maxnoof USCHs>* | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | – | |
| >>Transport Format Management | M | | 9.2.3.13 | | – | |
| >>Binding ID | O | | 9.2.1.3 | | – | |
| >>Transport Layer Address | O | | 9.2.1.62 | | – | |
| >Uplink Timing Advance Control LCR | O | | 9.2.3.13K | Applicable to 1.28Mcps TDD | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | | only | | |
| >Secondary CCPCH Info TDD LCR | O | | 9.2.3.7F | Applicable to 1.28Mcps TDD only | YES | ignore |
| >Secondary CCPCH Info 7.68Mcps TDD | O | | 9.2.3.22 | Applicable to 7.68Mcps TDD only | YES | ignore |
| >UARFCN | O | | 9.2.1.66 | Applicable to 1.28Mcps TDD only. Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt (3GPP TS 25.105) | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| HS-DSCH Information Response | O | | HS-DSCH TDD Information Response 9.2.3.3ab | | YES | ignore |
| DSCH-RNTI | O | | 9.2.3.3ah | | YES | ignore |
| MAC-hs Reset Indicator | O | | 9.2.1.34B | | YES | ignore |
| E-DCH Information Response | O | | E-DCH TDD Information Response 9.2.3.41 | 3.84Mcps TDD only | YES | ignore |
| E-DCH Information Response 7.68Mcps | O | | E-DCH TDD Information Response 7.68Mcps 9.2.3.52 | 7.68Mcps TDD only | YES | ignore |
| E-DCH Information Response 1.28Mcps | O | | E-DCH TDD Information Response 1.28Mcps 9.2.3.41a | 1.28Mcps TDD only | YES | ignore |
| PowerControl GAP | O | | INTEGER (1..255) | 1.28Mcps TDD only | YES | ignore |
| Idle Interval Information | O | | 9.2.3.60 | TDD only | YES | ignore |
| Continuous Packet Connectivity DRX Information Response LCR | O | | 9.2.3.63 | 1.28 Mcps TDD only | YES | ignore |
| HS-DSCH Semi-Persistent scheduling Information Response LCR | O | | 9.2.3.68 | 1.28 Mcps TDD only | YES | ignore |
| E-DCH Semi-Persistent scheduling Information Response LCR | O | | 9.2.3.69 | 1.28 Mcps TDD only | YES | ignore |
| E-RNTI for FACH | O | | E-RNTI 9.2.1.94 | 1.28 Mcps TDD only | YES | ignore |
| H-RNTI for FACH | O | | HS-DSCH-RNTI 9.2.1.30P | 1.28 Mcps TDD only | YES | ignore |
| DCH Measurement Occasion Information | O | | 9.2.3.75 | 1.28 Mcps TDD only | YES | reject |
| Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities. | | | | | | |

| Range bound | Explanation |
|---|---|
| *maxnoofDSCHs* | Maximum number of DSCHs for one UE. |
| *maxnoofUSCHs* | Maximum number of USCHs for one UE. |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE. |
| *maxnoofTS* | Maximum number of Timeslots for a UE for 3.84Mcps TDD or 7.68Mcps TDD. |
| *maxnoofDPCHs* | Maximum number of DPCH for a UE for 3.84Mcps TDD. |
| *maxnoofTSLCRs* | Maximum number of Timeslots for a UE for 1.28Mcps TDD. |
| *maxnoofDPCHLCRs* | Maximum number of DPCH for a UE for 1.28Mcps TDD. |
| *maxnoofRLs* | Maximum number of RLs for one UE |
| *maxnoofDPCHs768* | Maximum number of DPCH for a UE for 7.68Mcps TDD. |

## 9.1.13 RADIO LINK RECONFIGURATION COMMIT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CFN | M | | 9.2.1.9 | | YES | ignore |
| Active Pattern Sequence Information | O | | 9.2.2.A | FDD only | YES | ignore |
| Fast Reconfiguration Mode | O | | 9.2.2.70 | FDD only | YES | reject |

## 9.1.14 RADIO LINK RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CHOICE *Cause Level* | M | | | | YES | ignore |
| *>General* | | | | | – | |
| >>Cause | M | | 9.2.1.5 | | – | |
| *>RL Specific* | | | | | – | |
| **>>RLs Causing Reconfiguration Failure** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>Cause | M | | 9.2.1.5 | | – | |
| >>>Max UE DTX Cycle | C-DTX-CycleNotAvailable | | 9.2.2.87 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

| Condition | Explanation |
|---|---|
| DTX-CycleNotAvailable | The IE shall be present if the *Cause* IE is set to “Continuous Packet Connectivity UE DTX Cycle not Available “. |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for a UE. |

## 9.1.15 RADIO LINK RECONFIGURATION CANCEL

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |

# 9.1.16 RADIO LINK RECONFIGURATION REQUEST

## 9.1.16.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.63 | TFCS for the UL. | – | |
| >UL DPDCH Indicator For E-DCH Operation | O | | 9.2.2.52A | | YES | reject |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.63 | TFCS for the DL. | – | |
| >TFCI Signalling Mode | O | | 9.2.2.46 | | – | |
| >Limited Power Increase | O | | 9.2.2.21A | | – | |
| DCHs To Modify | O | | FDD DCHs To Modify 9.2.2.13C | | YES | reject |
| DCHs To Add | O | | DCH FDD Information 9.2.2.4A | | YES | reject |
| **DCHs To Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.16 | | – | |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.47A | | YES | reject |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >RL Specific DCH Information | O | | 9.2.1.49A | | – | |
| >RL specific E-DCH Information | O | | 9.2.2.35a | | YES | reject |
| >E-DCH RL Indication | O | | 9.2.2.4E | | YES | reject |
| >HS-DSCH Preconfiguration Setup | O | | 9.2.2.100 | | YES | ignore |
| >Non-Serving RL Preconfiguration Setup | O | | 9.2.2.124 | | YES | ignore |
| >Non-Serving RL Preconfiguration Removal | O | | Non-Serving RL Preconfiguration Setup 9.2.2.124 | | YES | ignore |
| DL Reference Power Information | O | | 9.2.2.10C | | YES | ignore |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |
| HS-DSCH Information To Modify Unsynchronised | O | | 9.2.1.30NA | | YES | reject |
| HS-DSCH MAC-d Flows To Add | O | | HS-DSCH MAC-d Flows Information 9.2.1.30OA | | YES | reject |
| HS-DSCH MAC-d Flows To Delete | O | | 9.2.1.30OB | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| HS-PDSCH RL ID | O | | RL ID 9.2.1.49 | | YES | reject |
| **E-DPCH Information** | | *0..1* | | | YES | reject |
| >Maximum Set of E-DPDCHs | O | | 9.2.2.24e | | – | |
| >Puncture Limit | O | | 9.2.1.46 | | – | |
| >E-TFCS Information | O | | 9.2.2.4G | | – | |
| >E-TTI | O | | 9.2.2.4J | | – | |
| >E-DPCCH Power Offset | O | | 9.2.2.4K | | – | |
| >E-RGCH 2-Index-Step Threshold | O | | 9.2.2.64 | | – | |
| >E-RGCH 3-Index-Step Threshold | O | | 9.2.2.65 | | – | |
| >HARQ Info for E-DCH | O | | 9.2.2.66 | | – | |
| > Minimum Reduced E-DPDCH Gain Factor | O | | 9.2.2.102 | | YES | ignore |
| >HS-DSCH Configured Indicator | O | | 9.2.2.19C | | – | |
| E-DCH FDD Information | O | | 9.2.2.4B | | YES | reject |
| E-DCH FDD Information to Modify | O | | 9.2.2.4F | | YES | reject |
| E-DCH MAC-d Flows to Add | O | | E-DCH MAC-d flows Information 9.2.2.4MC | | YES | reject |
| E-DCH MAC-d Flows to Delete | O | | 9.2.1.90 | | YES | reject |
| Serving E-DCH RL | O | | 9.2.2.38C | | YES | reject |
| **CPC Information** | | *0..1* | | | YES | reject |
| >Continuous Packet Connectivity DTX-DRX Information | O | | 9.2.2.72 | | – | |
| >Continuous Packet Connectivity DTX-DRX Information To Modify | O | | 9.2.2.73 | | – | |
| >Continuous Packet Connectivity HS-SCCH less Information | O | | 9.2.2.74 | | – | |
| >Continuous Packet Connectivity HS-SCCH less Deactivate Indicator | O | | 9.2.2.75A | | YES | reject |
| No of Target Cell HS-SCCH Order | O | | INTEGER (1..30) | | YES | ignore |
| **Additional HS Cell Information RL Reconf Req** | | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | reject |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >C-ID | O | | 9.2.1.6 | | – | |
| >HS-DSCH FDD Secondary Serving Information | O | | 9.2.2.19aa | | – | |
| >HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised | O | | 9.2.2.19bc | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >HS-DSCH Secondary Serving Remove | O | | NULL | | – | |
| UE Aggregate Maximum Bit Rate | O | | 9.2.1.137 | | YES | ignore |
| **Additional E-DCH Cell Information RL Reconf Req** | | *0..1* | | For E-DCH on multiple frequencies in this DRNS. | YES | reject |
| >CHOICE *Setup, Configuration Change or Removal of E-DCH On Secondary UL Frequency* | M | | | | YES | reject |
| *>>Setup* | | | | Used when RLs on the secondary UL frequency does not exist or is not configured with E-DCH in the current UE context | – | |
| >>>Multicell E-DCH Transport Bearer Mode | M | | 9.2.2.113 | | – | |
| **>>>Additional E-DCH Cell Information Setup** | | *1..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| >>>>Additional E-DCH FDD Setup Information | M | | 9.2.2.110 | | – | |
| *>>Configuration Change* | | | | Used when RLs with additional E-DCH on the secondary UL frequency exist in the current UE context and the configuration is modified (adding new RLs or modification of existing RLs) | – | |
| **>>>Additional E-DCH Cell Information Configuration Change** | | *1..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| >>>> Additional E-DCH Configuration Change Information | M | | 9.2.2.111 | | – | |
| *>>Removal* | | | | Used when all RLs on the indicated | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | secondary UL frequency is removed. | | |
| **>>>Additional E-DCH Cell Information Removal** | | *1..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | – | |
| >>>>RL on Secondary UL Frequency | M | | ENUMERATED (Remove, ...) | Removal of all RL on secondary UL frequency | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |
| *maxnoofRLs* | Maximum number of RLs for a UE. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.16.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL CCTrCH Information To Modify** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TFCS | O | | 9.2.1.63 | | – | |
| >UL SIR Target | O | | Uplink SIR 9.2.1.69 | Applicable to 1.28Mcps TDD only | YES | reject |
| **UL CCTrCH Information to Delete** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| **DL CCTrCH Information To Modify** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| >TFCS | O | | 9.2.1.63 | | – | |
| **DL CCTrCH Information to Delete** | | *0..<maxnoofCCTrCHs>* | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | – | |
| DCHs To Modify | O | | TDD DCHs To Modify 9.2.3.8B | | YES | reject |
| DCHs To Add | O | | DCH TDD Information 9.2.3.2A | | YES | reject |
| **DCHs to Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.16 | | – | |
| **RL Information** | | *0..<maxnoofRLs>* | | | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >RL Specific DCH Information | O | | 9.2.1.49A | | – | |
| **UL Synchronisation Parameters LCR** | | *0..1* | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >Uplink Synchronisation Step Size | M | | 9.2.3.13J | | – | |
| >Uplink Synchronisation Frequency | M | | 9.2.3.13I | | – | |
| HS-DSCH Information | O | | HS-DSCH TDD Information9.2.3.3aa | | YES | reject |
| HS-DSCH Information To Modify Unsynchronised | O | | 9.2.1.30NA | | YES | reject |
| HS-DSCH MAC-d Flows To Add | O | | HS-DSCH MAC-d Flows Information 9.2.1.30OA | | YES | reject |
| HS-DSCH MAC-d Flows To Delete | O | | 9.2.1.30OB | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID | | YES | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | 9.2.1.49 | | | |
| **E-DCH Information** | | 0..1 | | 3.84Mcps TDD only | YES | reject |
| >E-PUCH Information | O | | 9.2.3.36 | | – | |
| >E-TFCS Information TDD | O | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows to Add | O | | 9.2.3.38 | | – | |
| >E-DCH MAC-d Flows to Delete | O | | 9.2.1.90 | | – | |
| >E-DCH TDD Information | O | | 9.2.3.40 | | – | |
| >E-DCH TDD Information to Modify | O | | 9.2.3.42 | | – | |
| E-DCH Serving RL | O | | 9.2.1.49 | 3.84Mcps TDD only | YES | reject |
| **E-DCH Information 7.68Mcps** | | *0..1* | | 7.68Mcps TDD only | YES | reject |
| >E-PUCH Information | O | | 9.2.3.36 | | – | |
| >E-TFCS Information TDD | O | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows to Add | O | | 9.2.3.38 | | – | |
| >E-DCH MAC-d Flows to Delete | O | | 9.2.1.90 | | – | |
| >E-DCH TDD Information 7.68Mcps | O | | 9.2.3.51 | | – | |
| >E-DCH TDD Information to Modify | O | | 9.2.3.42 | | – | |
| **E-DCH Information 1.28Mcps** | | 0..1 | | 1.28Mcps TDD only | YES | reject |
| >E-PUCH Information LCR | O | | 9.2.3.36a | | – | |
| >E-TFCS Information TDD | O | | 9.2.3.37 | | – | |
| >E-DCH MAC-d Flows to Add | O | | 9.2.3.38 | | – | |
| >E-DCH MAC-d Flows to Delete | O | | 9.2.1.90 | | – | |
| >E-DCH TDD Information LCR | O | | 9.2.3.40a | | – | |
| >E-DCH TDD Information to Modify | O | | 9.2.3.42 | | – | |
| Need for Idle Interval | O | | ENUMERATED (True, False) | TDD only | YES | ignore |
| **CPC Information** | | *0..1* | | | YES | reject |
| >Continuous Packet Connectivity DRX Information LCR | O | | 9.2.3.61 | | – | |
| >Continuous Packet Connectivity DRX Information To Modify LCR | O | | 9.2.3.62 | | – | |
| >HS-DSCH Semi-Persistent scheduling Information LCR | O | | 9.2.3.64 | | – | |
| >HS-DSCH Semi-Persistent scheduling Information to modify LCR | O | | 9.2.3.65 | | – | |
| >HS-DSCH Semi-Persistent scheduling Deactivate Indicator LCR | O | | 9.2.3.70 | | – | |
| >E-DCH Semi-Persistent scheduling Information LCR | O | | 9.2.3.66 | | – | |
| >E-DCH Semi-Persistent scheduling Information to modify LCR | O | | 9.2.3.67 | | – | |
| >E-DCH Semi-Persistent scheduling Deactivate Indicator LCR | O | | 9.2.3.71 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| RNTI Allocation Indicator | O | | ENUMERATED (True) | 1.28 Mcps TDD only | YES | ignore |
| DCH Measurement Type indicator | O | | 9.2.3.76 | 1.28 Mcps TDD only | YES | reject |

| Range Bound | Explanation |
|---|---|
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE. |
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |
| *maxnoofRLs* | Maximum number of RLs for one UE |

# 9.1.17 RADIO LINK RECONFIGURATION RESPONSE

## 9.1.17.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information Response** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >Maximum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Not Used | O | | NULL | | – | |
| >DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >DL Code Information | O | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >DL Power Balancing Updated Indicator | O | | 9.2.2.10D | | YES | ignore |
| >E-DCH FDD Information Response | O | | 9.2.2.4C | | YES | ignore |
| >E-DCH RL Set ID | O | | RL Set ID 9.2.2.35 | | YES | ignore |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.4D | | YES | ignore |
| >F-DPCH Slot Format | O | | 9.2.2.85 | | YES | ignore |
| >HS-DSCH Preconfiguration Info | O | | 9.2.2.99 | | YES | ignore |
| >Non-Serving RL Preconfiguration Info | O | | 9.2.2.125 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| MAC-hs Reset Indicator | O | | 9.2.1.34B | | YES | ignore |
| Continuous Packet Connectivity HS-SCCH less Information Response | O | | 9.2.2.75 | | YES | Ignore |
| **Additional HS Cell Information Response** | | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | ignore |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >HS-DSCH-RNTI | M | | 9.2.1.30P | | – | |
| >HS-DSCH FDD Secondary Serving Information Response | M | | 9.2.2.19ba | | – | |
| **Additional E-DCH Cell** | | *0..<maxno* | | E-DCH on | EACH | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Information Response RLReconf** | | *ofEDCH-1>* | | Secondary uplink frequency – max 1 in this 3GPP release. | | |
| >Additional E-DCH FDD Information Response | O | | 9.2.2.120 | For new E-DCH Radio Links on secondary carrier | – | |
| >Additional Modified E-DCH FDD Information Response | O | | 9.2.2.121 | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for a UE. |
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.1.17.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information Response** | | *0..<maxnoofRLs>* | | See note 1 below | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >Maximum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| **>DL CCTrCH Information** | | *0..<maxnoofCCTrCHs>* | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH To Modify LCR** | | *0..1* | | Applicable to 1.28Mcps TDD only | YES | ignore |
| **>>>DL Timeslot Information LCR** | | *0..<maxnoOfTSLCR>* | | | – | |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>>>Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | – | |
| >>>>Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | – | |
| >>CCTrCH Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH Applicable to 3.84Mcps TDD and 7.68Mcps TDD only | YES | ignore |
| >>CCTrCH Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed power on DPCH Applicable to 3.84Mcps TDD and 7.68Mcps TDD only | YES | ignore |
| >Uplink Timing Advance Control LCR | O | | 9.2.3.13K | Applicable to 1.28Mcps TDD only | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| HS-DSCH Information Response | O | | HS-DSCH TDD Information Response 9.2.3.3ab | | YES | ignore |
| MAC-hs Reset Indicator | O | | 9.2.1.34B | | YES | ignore |
| E-DCH Information Response | O | | E-DCH TDD Information | 3.84Mcps TDD only | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | Response 9.2.3.41 | | | |
| E-DCH Information Response 7.68Mcps | O | | E-DCH TDD Information Response 7.68Mcps 9.2.3.52 | 7.68Mcps TDD only | YES | ignore |
| E-DCH Information Response 1.28Mcps | O | | E-DCH TDD Information Response 1.28Mcps 9.2.3.41a | 1.28Mcps TDD only | YES | ignore |
| PowerControl GAP | O | | INTEGER (1..255) | 1.28Mcps TDD only | YES | ignore |
| Idle Interval Information | O | | 9.2.3.60 | TDD only | YES | ignore |
| Continuous Packet Connectivity DRX Information Response LCR | O | | 9.2.3.63 | 1.28 Mcps TDD only | YES | ignore |
| HS-DSCH Semi-Persistent scheduling Information Response LCR | O | | 9.2.3.68 | 1.28 Mcps TDD only | YES | ignore |
| E-DCH Semi-Persistent scheduling Information Response LCR | O | | 9.2.3.69 | 1.28 Mcps TDD only | YES | ignore |
| E-RNTI for FACH | O | | E-RNTI 9.2.1.94 | 1.28 Mcps TDD only | YES | ignore |
| H-RNTI for FACH | O | | HS-DSCH-RNTI 9.2.1.30P | 1.28 Mcps TDD only | YES | ignore |
| DCH Measurement Occasion Information | O | | 9.2.3.75 | 1.28 Mcps TDD only | YES | reject |
| Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities. | | | | | | |

| Range bound | Explanation |
|---|---|
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE. |
| *maxnoofTSLCRs* | Maximum number of Timeslots for a UE for 1.28Mcps TDD. |
| *maxnoofRLs* | Maximum number of RLs for one UE |

## 9.1.18 RADIO LINK FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CHOICE *Reporting Object* | M | | | Object for which the Failure shall be reported. | YES | ignore |
| *>RL* | | | | | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>Cause | M | | 9.2.1.5 | | – | |
| *>RLS* | | | | FDD only | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| >>>Cause | M | | 9.2.1.5 | | – | |
| *>CCTrCH* | | | | TDD only | | |
| >>RL ID | M | | 9.2.1.49 | | – | |
| **>>CCTrCH List** | | *1..<maxnoCCTrCHs>* | | | EACH | ignore |
| >>>CCTrCH ID | M | | 9.2.3.2 | | – | |
| >>>Cause | M | | 9.2.1.5 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE. |
| *maxnoofRLSets* | Maximum number of RL Sets for one UE. |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE. |

## 9.1.19 RADIO LINK RESTORE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CHOICE *Reporting Object* | M | | | Object for which the Restoration shall be reported. | YES | ignore |
| *>RL* | | | | TDD only | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| *>RLS* | | | | FDD only | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| *>CCTrCH* | | | | TDD only | | |
| >>RL ID | M | | 9.2.1.49 | | – | |
| **>>CCTrCH List** | | *1..<maxnoCCTrCHs>* | | | EACH | ignore |
| >>>CCTrCH ID | M | | 9.2.3.2 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE. |
| *maxnoofRLSets* | Maximum number of RL Sets for one UE. |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE. |

## 9.1.20 DL POWER CONTROL REQUEST [FDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Power Adjustment Type | M | | 9.2.2.28 | | YES | ignore |
| DL Reference Power | C-Common | | DL Power 9.2.1.21A | | YES | ignore |
| Inner Loop DL PC Status | O | | 9.2.2.21a | | YES | ignore |
| **DL Reference Power Information** | C-Individual | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >DL Reference Power | M | | DL Power 9.2.1.21A | | – | |
| Max Adjustment Step | C-CommonOrIndividual | | 9.2.2.23 | | YES | ignore |
| Adjustment Period | C-CommonOrIndividual | | 9.2.2.B | | YES | ignore |
| Adjustment Ratio | C-CommonOrIndividual | | 9.2.2.C | | YES | ignore |

| Condition | Explanation |
|---|---|
| Common | The IE shall be present if the *Power Adjustment Type* IE is set to "Common". |
| Individual | The IE shall be present if the *Power Adjustment Type* IE is set to "Individual". |
| CommonOrIndividual | The IE shall be present if the *Power Adjustment Type* IE is set to "Common" or "Individual". |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE. |

## 9.1.21 PHYSICAL CHANNEL RECONFIGURATION REQUEST

### 9.1.21.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information** | | *1* | | | YES | reject |
| >RL ID | M | | 9.2.1.49 | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | YES | notify |
| >F-DPCH Slot Format | O | | 9.2.2.85 | | YES | Ignore |

### 9.1.21.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information** | | *1* | | | YES | reject |
| >RL ID | M | | 9.2.1.49 | | – | |
| **>UL CCTrCH Information** | | *0.. <maxnoof CCTrCHs>* | | | GLOBAL | reject |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>UL DPCH Information** | | *1* | | | YES | notify |
| >>>Repetition Period | O | | 9.2.3.7 | | – | |
| >>>Repetition Length | O | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | O | | 9.2.3.8A | | – | |
| **>>>UL Timeslot Information** | | *0..<maxno OfTS>* | | Applicable to 3.84Mcps TDD only | – | |
| >>>>Time Slot | M | | 9.2.1.56 | | – | |
| >>>>Midamble Shift And Burst Type | O | | 9.2.3.4 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| >>>>UL Code Information | O | | TDD UL Code Information 9.2.3.10A | | – | |
| **>>>UL Timeslot Information LCR** | | *0..<maxno OfTSLCR >* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>>>Midamble Shift LCR | O | | 9.2.3.4C | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| >>>>UL Code Information LCR | O | | TDD UL Code Information LCR 9.2.3.10B | | – | |
| >>>>PLCCH Information | O | | 9.2.3.17 | | YES | Reject |
| **>>>UL Timeslot Information 7.68Mcps** | | *0..<maxno OfTS>* | | Applicable to 7.68Mcps TDD only | GLOBAL | reject |
| >>>>Time Slot | M | | 9.2.1.56 | | – | |
| >>>>Midamble Shift And Burst Type 7.68Mcps | O | | 9.2.3.23 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| >>>>UL Code Information 7.68Mcps | O | | TDD UL Code Information 9.2.3.27 | | – | |
| **>DL CCTrCH Information** | | *0..<maxno ofCCTrCH s>* | | | GLOBAL | reject |
| >>CCTrCH ID | M | | 9.2.3.2 | | – | |
| **>>DL DPCH Information** | | *1* | | | YES | notify |
| >>>Repetition Period | O | | 9.2.3.7 | | – | |
| >>>Repetition Length | O | | 9.2.3.6 | | – | |
| >>>TDD DPCH Offset | O | | 9.2.3.8A | | – | |
| **>>>DL Timeslot Information** | | *0..<maxno OfTS>* | | Applicable to 3.84Mcps TDD only | – | |
| >>>>Time Slot | M | | 9.2.1.56 | | – | |
| >>>>Midamble Shift | O | | 9.2.3.4 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| And Burst Type | | | | | | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| >>>>DL Code Information | O | | TDD DL Code Information 9.2.3.8C | | – | |
| **>>>DL Timeslot Information LCR** | | *0..<maxnoOfTSLCR>* | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>>>Midamble Shift LCR | O | | 9.2.3.4C | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| >>>>DL Code Information LCR | O | | TDD DL Code Information LCR 9.2.3.8D | | – | |
| **>>>DL Timeslot Information 7.68Mcps** | | *0..<maxnoOfTS>* | | Applicable to 7.68Mcps TDD only | GLOBAL | reject |
| >>>>Time Slot | M | | 9.2.1.56 | | – | |
| >>>>Midamble Shift And Burst Type 7.68Mcps | O | | 9.2.3.23 | | – | |
| >>>>TFCI Presence | O | | 9.2.1.55 | | – | |
| >>>>DL Code Information 7.68Mcps | O | | TDD DL Code Information 7.68Mcps 9.2.3.29 | | – | |
| **>HS-PDSCH Timeslot Specific Information** | | 0..<maxnoofDLts> | | Applicable to 3.84Mcps TDD only. | GLOBAL | reject |
| >>Time Slot | M | | 9.2.1.56 | | – | |
| >>Midamble Shift And Burst Type | M | | 9.2.3.4 | | – | |
| **>HS-PDSCH Timeslot Specific Information LCR** | | 0..<maxnoofDLtsLCR> | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>Midamble Shift LCR | M | | 9.2.3.4C | | – | |
| **>HS-PDSCH Timeslot Specific Information 7.68Mcps** | | *0..<maxnoofDLts>* | | Applicable to 7.68Mcps TDD only. | GLOBAL | reject |
| >>Time Slot | M | | 9.2.1.56 | | – | |
| >>Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | | – | |
| >UARFCN | O | | 9.2.1.66 | Applicable to 1.28Mcps TDD only. | YES | ignore |

| Range bound | Explanation |
|---|---|
| | |
| *maxnoofCCTrCHs* | Maximum number of CCTrCHs for a UE. |
| *maxnoofTS* | Maximum number of Timeslots for a UE for 3.84Mcps TDD or 7.68Mcps TDD. |
| *maxnoofTSLCR* | Maximum number of Timeslots for a UE for 1.28Mcps TDD. |
| *maxnoofDLts* | Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD or 7.68Mcps TDD. |
| *maxnoofDLtsLCR* | Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD. |

## 9.1.22 PHYSICAL CHANNEL RECONFIGURATION COMMAND

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CFN | M | | 9.2.1.9 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.23 PHYSICAL CHANNEL RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.24 UPLINK SIGNALLING TRANSFER INDICATION

### 9.1.24.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| UC-ID | M | | 9.2.1.71 | | YES | ignore |
| SAI | M | | 9.2.1.52 | | YES | ignore |
| Cell GAI | O | | 9.2.1.5A | | YES | ignore |
| C-RNTI | M | | 9.2.1.14 | | YES | ignore |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| Propagation Delay | M | | 9.2.2.33 | | YES | ignore |
| STTD Support Indicator | M | | 9.2.2.45 | | YES | ignore |
| Closed Loop Mode1 Support Indicator | M | | 9.2.2.2 | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | O | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | O | | 9.2.1.11 | | YES | ignore |
| URA Information | O | | 9.2.1.70B | | YES | ignore |
| Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| DPC Mode Change Support Indicator | O | | 9.2.2.56 | | YES | ignore |
| Common Transport Channel Resources Initialisation Not Required | O | | 9.2.1.12F | | YES | Ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| Cell Capability Container FDD | O | | 9.2.2.D | | YES | ignore |
| SNA Information | O | | 9.2.1.52Ca | | YES | ignore |
| Cell Portion ID | O | | 9.2.2.E | | YES | ignore |
| **Active MBMS Bearer Service List** | | *0..<maxnoofActiveMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| >Transmission Mode | M | | 9.2.1.81 | | – | |
| Inter-frequency Cell List | | *0..<maxCellsMeas>* | | | GLOBAL | ignore |
| >DL UARFCN | M | | UARFCN 9.2.1.66 | | – | |
| >UL UARFCN | O | | UARFCN 9.2.1.66 | | – | |
| >Primary Scrambling Code | M | | 9.2.1.45 | | – | |
| Extended Propagation Delay | O | | 9.2.2.33a | | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| Multiple PLMN List | O | | 9.2.1.117 | | YES | ignore |
| E-RNTI | O | | 9.2.1.94 | | YES | ignore |
| Max UE DTX Cycle | C-DTX-DRXCapability | | 9.2.2.87 | | YES | ignore |
| Cell Capability Container FDD Extension | O | | 9.2.2.123 | | YES | ignore |
| Secondary Serving Cell List | O | | 9.2.2.101 | | YES | ignore |
| Dual Band Secondary Serving Cell List | O | | Secondary Serving Cell List 9.2.2.101 | | YES | ignore |

| Condition | Explanation |
|---|---|
| DTX-DRXCapability | The IE shall be present if the *Continuous Packet Connectivity DTX-DRX Support Indicator* IE in *Cell Capability Container FDD* IE is set to 1. |

| Range bound | Explanation |
|---|---|
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |
| *maxCellsMeas* | Maximum number of inter-frequency cells measured by a UE. |

### 9.1.24.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| UC-ID | M | | 9.2.1.71 | | YES | ignore |
| SAI | M | | 9.2.1.52 | | YES | ignore |
| Cell GAI | O | | 9.2.1.5A | | YES | Ignore |
| C-RNTI | M | | 9.2.1.14 | | YES | ignore |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| Rx Timing Deviation | M | | 9.2.3.7A | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | O | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | O | | 9.2.1.11 | | YES | ignore |
| URA Information | O | | 9.2.1.70B | | YES | ignore |
| Cell GA Additional Shapes | O | | 9.2.1.5B | | YES | ignore |
| Common Transport Channel Resources Initialisation Not Required | O | | 9.2.1.12F | | YES | ignore |
| Cell Capability Container TDD | O | | 9.2.3.1a | Applicable to 3.84Mcps TDD only | YES | ignore |
| Cell Capability Container TDD LCR | O | | 9.2.3.1b | Applicable to 1.28Mcps TDD only | YES | ignore |
| SNA Information | O | | 9.2.1.52Ca | | YES | ignore |
| **Active MBMS Bearer Service List** | | *0..<maxnoofActiveMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| >Transmission Mode | M | | 9.2.1.81 | | – | |
| Cell Capability Container 7.68Mcps TDD | O | | 9.2.3.31 | Applicable to 7.68Mcps TDD only | YES | ignore |
| Rx Timing Deviation 7.68Mcps | O | | 9.2.3.30 | Applicable to 7.68Mcps TDD only | YES | ignore |
| Rx Timing Deviation 3.84Mcps Extended | O | | 9.2.3.35 | Applicable to 3.84Mcps TDD only | YES | ignore |
| Multiple PLMN List | O | | 9.2.1.117 | | YES | ignore |
| HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | ignore |
| E-RNTI | O | | 9.2.1.94 | | YES | ignore |
| Cell Portion LCR ID | O | | 9.2.3.73 | Applicable to 1.28Mcps TDD only | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |

## 9.1.24A GERAN UPLINK SIGNALLING TRANSFER INDICATION

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| UC-ID | M | | 9.2.1.71 | UC-ID may be a GERAN cell identifier. | YES | ignore |
| SAI | M | | 9.2.1.52 | | YES | ignore |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | O | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | O | | 9.2.1.11 | | YES | ignore |
| URA Information | O | | 9.2.1.70B | URA information may be GRA information | YES | ignore |

## 9.1.25 DOWNLINK SIGNALLING TRANSFER REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| C-ID | M | | 9.2.1.6 | May be a GERAN cell identifier | YES | ignore |
| D-RNTI | M | | 9.2.1.24 | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| D-RNTI Release Indication | M | | 9.2.1.25 | | YES | ignore |
| URA-ID | O | | 9.2.1.70 | | YES | ignore |
| **MBMS Bearer Service List** | | *0..<maxnoofMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| Old URA-ID | O | | URA-ID 9.2.1.70 | | YES | ignore |
| SRNC-ID | C-URA | | RNC-ID 9.2.1.50 | If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored. | YES | ignore |
| Extended SRNC-ID | O | | Extended RNC-ID 9.2.1.50a | The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |
| Enhanced PCH Capability | O | | 9.2.1.132 | FDD and 1.28Mcps TDD only | YES | Ignore |

| Condition | Explanation |
|---|---|
| URA | The IE shall be present if the *URA-ID* IE or *Old URA-ID* IE is present. |

| Range bound | Explanation |
|---|---|
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |

## 9.1.26 RELOCATION COMMIT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| RANAP Relocation Information | O | | 9.2.1.47 | | YES | ignore |

## 9.1.27 PAGING REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| CHOICE *Paging Area* | M | | | | YES | ignore |
| >*URA* | | | | | – | |
| >>URA-ID | M | | 9.2.1.70 | May be a GRA-ID. | – | |
| >*Cell* | | | | UTRAN only | – | |
| >>C-ID | M | | 9.2.1.6 | | – | |
| SRNC-ID | M | | RNC-ID 9.2.1.50 | May be a BSC-ID. If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored. | YES | ignore |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| IMSI | M | | 9.2.1.31 | | YES | ignore |
| DRX Cycle Length Coefficient | M | | 9.2.1.26 | | YES | ignore |
| **CN Originated Page to Connected Mode UE** | | *0..1* | | | YES | ignore |
| >Paging Cause | M | | 9.2.1.41E | | – | |
| >CN Domain Type | M | | 9.2.1.11A | | – | |
| >Paging Record Type | M | | 9.2.1.41F | | – | |
| Extended SRNC-ID | O | | Extended RNC-ID 9.2.1.50a | The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |
| Enhanced PCH Capability | O | | 9.2.1.132 | FDD and 1.28Mcps TDD only | YES | Ignore |

## 9.1.28 DEDICATED MEASUREMENT INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | reject |
| CHOICE *Dedicated Measurement Object Type* | M | | | | YES | reject |
| *>RL* | | | | | – | |
| >>**RL Information** | | *1..<maxnoofRLs>* | | | EACH | reject |
| >>>RL-ID | M | | 9.2.1.49 | | – | |
| >>>DPCH ID | O | | 9.2.3.3 | TDD only | – | |
| >>>DPCH ID 7.68Mcps | O | | 9.2.3.34 | 7.68Mcps TDD only | – | |
| **>>>HS-SICH Information** | | *0..<maxnoofHSSICHs>* | | TDD only | GLOBAL | reject |
| >>>>HS-SICH ID | M | | 9.2.3.3ad | | – | |
| *>RLS* | | | | FDD only | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | reject |
| >>>RL-Set-ID | M | | 9.2.2.35 | | – | |
| *>ALL RL* | | | NULL | | – | |
| *>ALL RLS* | | | NULL | FDD only | – | |
| Dedicated Measurement Type | M | | 9.2.1.18 | | YES | reject |
| Measurement Filter Coefficient | O | | 9.2.1.36 | | YES | reject |
| Report Characteristics | M | | 9.2.1.48 | | YES | reject |
| CFN reporting indicator | M | | FN reporting indicator 9.2.1.28A | | YES | reject |
| CFN | O | | 9.2.1.9 | | YES | reject |
| Partial Reporting Indicator | O | | 9.2.1.41Fa | | YES | ignore |
| Measurement Recovery Behavior | O | | 9.2.1.38A | | YES | ignore |
| Alternative Format Reporting Indicator | O | | 9.2.1.2D | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs a measurement can be started on. |
| *maxnoofRLSets* | Maximum number of individual RL Sets a measurement can be started on. |

## 9.1.29 DEDICATED MEASUREMENT INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE *Dedicated Measurement Object Type* | O | | | Dedicated Measurement Object Type the measurement was initiated with | YES | ignore |
| *>RL* or *ALL RL* | | | | See Note 1 | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>DPCH ID | O | | 9.2.3.3 | TDD only | – | |
| >>>DPCH ID 7.68Mcps | O | | 9.2.3.34 | 7.68Mcps TDD only | – | |
| >>>Dedicated Measurement Value | M | | 9.2.1.19 | | – | |
| >>>CFN | O | | 9.2.1.9 | Dedicated Measurement Time Reference | – | |
| >>>HS-SICH ID | O | | 9.2.3.3ad | TDD only | YES | reject |
| **>>>Multiple Dedicated Measurement Value Information** | | *0..<maxnoofDPCHsPerRL-1>* | | Applicable to 3.84Mcps TDD only | GLOBAL | ignore |
| >>>>DPCH ID | M | | 9.2.3.3 | | – | |
| >>>>Dedicated Measurement Value | M | | 9.2.1.19 | | – | |
| **>>>Multiple Dedicated Measurement Value Information LCR** | | *0..<maxnoofDPCHsLCRPerRL-1>* | | Applicable to 1.28McpsTDD only | GLOBAL | ignore |
| >>>>DPCH ID | M | | 9.2.3.3 | | – | |
| >>>>Dedicated Measurement Value | M | | 9.2.1.19 | | – | |
| **>>>Multiple HS-SICH Measurement Value Information** | | *0..<maxnoofHSSICHs-1>* | | TDD only | GLOBAL | ignore |
| >>>>HS-SICH ID | M | | 9.2.3.3ad | | – | |
| >>>>Dedicated Measurement Value | M | | 9.2.1.19 | | – | |
| **>>>Multiple Dedicated Measurement Value Information 7.68Mcps** | | *0..<maxnoofDPCHs768PerRL-1>* | | Applicable to 7.68Mcps TDD only | GLOBAL | ignore |
| >>>>DPCH ID 7.68Mcps | M | | 9.2.3.34 | | – | |
| >>>>Dedicated Measurement Value | M | | 9.2.1.19 | | – | |
| *>RLS* or *ALL RLS* | | | | FDD only See Note 2 | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| >>>Dedicated | M | | 9.2.1.19 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Measurement Value | | | | | | |
| >>>CFN | O | | 9.2.1.9 | Dedicated Measurement Time Reference | – | |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | Ignore |
| Measurement Recovery Support Indicator | O | | 9.2.1.38C | | YES | ignore |
| Note 1: This is a simplified representation of the ASN.1: there are two different choice tags “RL” and “ALL RL” in the ASN.1, each having exactly the same structure.<br>Note 2: This is a simplified representation of the ASN.1: there are two different choice tags “RLS” and “ALL RLS” in the ASN.1, each having exactly the same structure. | | | | | | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs the measurement can be started on. |
| *maxnoofRLSets* | Maximum number of individual RL Sets the measurement can be started on. |
| *maxnoofDPCHsPerRL* | Maximum number of DPCHs per RL a measurement can be started on for 3.84Mcps TDD |
| *maxnoofDPCHsLCRPerRL* | Maximum number of DPCHs per RL a measurement can be started on for 1.28Mcps TDD |
| *maxnoofHSSICHs* | Maximum number of HSSICHs per RL a measurement can be started on |
| *maxnoofDPCHs768PerRL* | Maximum number of DPCHs per RL a measurement can be started on for 7.68Mcps TDD |

## 9.1.30 DEDICATED MEASUREMENT INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| CHOICE *Dedicated Measurement Object Type* | O | | | Dedicated Measurement Object Type the measurement was initiated with | YES | ignore |
| *>RL* or *ALL RL* | | | | | – | |
| **>>Unsuccessful RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>Individual Cause | O | | Cause 9.2.1.5 | | – | |
| **>>Successful RL Information** | | *0..<maxnoofRLs-1>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>DPCH ID | O | | 9.2.3.3 | TDD only | – | |
| >>>Dedicated Measurement Value | M | | 9.2.1.19 | | – | |
| >>>CFN | O | | 9.2.1.9 | Dedicated Measurement Time Reference | – | |
| >>>HS-SICH ID | O | | 9.2.3.3ad | TDD only | YES | reject |
| *>RLS* or *ALL RLS* | | | | FDD only | – | |
| **>>Unsuccessful RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| >>>Individual Cause | O | | Cause 9.2.1.5 | | – | |
| **>>Successful RL Set Information** | | *0..<maxnoofRLSets-1>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| >>>Dedicated Measurement Value | M | | 9.2.1.19 | | – | |
| >>>CFN | O | | 9.2.1.9 | Dedicated Measurement Time Reference | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs the measurement can be started on. |
| *maxnoofRLSets* | Maximum number of individual RL Sets the measurement can be started on. |

## 9.1.31 DEDICATED MEASUREMENT REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE *Dedicated Measurement Object Type* | M | | | Dedicated Measurement Object Type the measurement was initiated with | YES | ignore |
| >*RL* or *ALL RL* | | | | See Note 1 | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >>>RL-ID | M | | 9.2.1.49 | | – | |
| >>>DPCH ID | O | | 9.2.3.3 | TDD only | – | |
| >>>DPCH ID 7.68Mcps | O | | 9.2.3.34 | 7.68Mcps TDD only | – | |
| >>>Dedicated Measurement Value Information | M | | 9.2.1.19A | | – | |
| >>>HS-SICH ID | O | | 9.2.3.3ad | TDD only | YES | ignore |
| >*RLS* or *ALL RLS* | | | | FDD only See Note 2 | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| >>>Dedicated Measurement Value Information | M | | 9.2.1.19A | | – | |
| *Measurement Recovery Reporting Indicator* | O | | 9.2.1.38B | | YES | ignore |

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags “RL” and “ALL RL” in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags “RLS” and “ALL RLS” in the ASN.1, each having exactly the same structure.

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs the measurement can be started on. |
| *maxnoofRLSets* | Maximum number of individual RL Sets the measurement can be started on. |

## 9.1.32 DEDICATED MEASUREMENT TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |

## 9.1.33 DEDICATED MEASUREMENT FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| CHOICE *Dedicated Measurement Object Type* | O | | | Dedicated Measurement Object Type the measurement was initiated with | YES | ignore |
| *>RL* or *ALL RL* | | | | | – | |
| **>>Unsuccessful RL Information** | | *1..<maxnoof RLs>* | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | – | |
| >>>Individual Cause | O | | Cause 9.2.1.5 | | – | |
| *>RLS* or *ALL RLS* | | | | FDD only | – | |
| **>>Unsuccessful RL Set Information** | | *1..<maxnoof RLSets>* | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | – | |
| >>>Individual Cause | O | | Cause 9.2.1.5 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs the measurement can be started on. |
| *maxnoofRLSets* | Maximum number of individual RL Sets the measurement can be started on. |

## 9.1.34 COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| D-RNTI | M | | 9.2.1.24 | | YES | ignore |

## 9.1.35 COMMON TRANSPORT CHANNEL RESOURCES REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| D-RNTI | M | | 9.2.1.24 | | YES | reject |
| C-ID | O | | 9.2.1.6 | | YES | reject |
| Transport Bearer Request Indicator | M | | 9.2.1.61 | Request a new transport bearer or to use an existing bearer for the user plane. | YES | reject |
| Transport Bearer ID | M | | 9.2.1.60 | Indicates the Iur transport bearer to be used for the user plane. | YES | reject |
| Permanent NAS UE Identity | O | | 9.2.1.73 | | YES | ignore |
| Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| **MBMS Bearer Service List** | | *0..<maxnoofMBMS>* | | | GLOBAL | notify |
| >TMGI | M | | 9.2.1. 80 | | – | |
| TNL QoS | O | | 9.2.1.56A | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| Enhanced FACH Support Indicator | O | | 9.2.1.131 | FDD and 1.28Mcps TDD only | YES | Ignore |
| Common E-DCH Support Indicator | O | | 9.2.2.92 | FDD only | YES | Ignore |
| HS-DSCH Physical Layer Category | O | | 9.2.1.30Oa | | Yes | Ignore |
| UE with enhanced HS-SCCH support indicator | O | | NULL | UE supports enhanced HS-SCCH functionality: - UE supports different HS-SCCH in consecutive TTIs | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |

# 9.1.36 COMMON TRANSPORT CHANNEL RESOURCES RESPONSE

## 9.1.36.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| C-RNTI | O | | 9.2.1.14 | | YES | ignore |
| **FACH Info for UE Selected S-CCPCH** | | *1* | | | YES | ignore |
| >FACH Flow Control Information | M | | 9.2.1.26C | If the *Enhanced FACH Information Response* IE is included in the message, the *FACH Flow Control Information* IE shall be ignored. | YES | ignore |
| Transport Layer Address | O | | 9.2.1.62 | | YES | ignore |
| Binding Identity | O | | 9.2.1.3 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| C-ID | M | | 9.2.1.6 | | YES | ignore |
| **Active MBMS Bearer Service List** | | *0..<maxnoofActiveMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| >Transmission Mode | M | | 9.2.1.81 | | – | |
| **Enhanced FACH Information Response** | | *0..1* | | | YES | ignore |
| >Common HS-DSCH-RNTI Priority Queue Information for Enhanced FACH | M | | Priority Queue Information for Enhanced FACH/PCH 9.2.1.133 | | – | |
| >Dedicated HS-DSCH-RNTI Priority Queue Information for Enhanced FACH | M | | Priority Queue Information for Enhanced FACH/PCH 9.2.1.133 | | – | |
| >Priority Queue Information for Enhanced PCH | O | | Priority Queue Information for Enhanced FACH/PCH 9.2.1.133 | | – | |
| >HS-DSCH Initial Capacity Allocation | M | | 9.2.1.30Na | | – | |
| >HS-DSCH-RNTI | O | | 9.2.1.30P | | – | |
| Common E-DCH MAC-d Flow Specific Information | O | | 9.2.2.93 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| E-RNTI | O | | 9.2.1.94 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |

### 9.1.36.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| C-RNTI | O | | 9.2.1.14 | | YES | ignore |
| **FACH Info for UE Selected S-CCPCHs** | | *1* | | | YES | ignore |
| >FACH Flow Control Information | M | | 9.2.1.26C | If the *Enhanced FACH Information Response* IE is included in the message, the *FACH Flow Control Information* IE shall be ignored. | YES | ignore |
| Transport Layer Address | O | | 9.2.1.62 | | YES | ignore |
| Binding Identity | O | | 9.2.1.3 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| C-ID | M | | 9.2.1.6 | | YES | ignore |
| **Active MBMS Bearer Service List** | | *0..<maxnoofActiveMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| >Transmission Mode | M | | 9.2.1.81 | | – | |
| **Enhanced FACH Information Response** | | *0.. 1* | | | YES | ignore |
| >Common HS-DSCH-RNTI Priority Queue Information for Enhanced FACH | M | | Priority Queue Information for Enhanced FACH/PCH 9.2.1.133 | | – | |
| >Dedicated HS-DSCH-RNTI Priority Queue Information for Enhanced FACH | M | | Priority Queue Information for Enhanced FACH/PCH 9.2.1.133 | | – | |
| >Priority Queue Information for Enhanced PCH | O | | Priority Queue Information for Enhanced FACH/PCH 9.2.1.133 | | – | |
| >HS-DSCH Initial Capacity Allocation | M | | 9.2.1.30Na | | – | |
| >HS-DSCH-RNTI | O | | 9.2.1.30P | | – | |
| Common E-DCH MAC-d Flow Specific Information LCR | O | | 9.2.3.58 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofActiveMBMS* | Maximum number of MBMS bearer services that are active in parallel. |

## 9.1.37 COMMON TRANSPORT CHANNEL RESOURCES FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.38 COMPRESSED MODE COMMAND [FDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Active Pattern Sequence Information | M | | 9.2.2.A | | YES | ignore |

## 9.1.39 ERROR INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Cause | O | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| S-RNTI | O | | 9.2.1.53 | | YES | ignore |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |

## 9.1.40 DL POWER TIMESLOT CONTROL REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| DL Time Slot ISCP Info | O | | 9.2.3.2D | Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, not applicable to 1.28Mcps TDD | YES | ignore |
| DL Time Slot ISCP Info LCR | O | | 9.2.3.2F | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD | YES | ignore |
| Primary CCPCH RSCP | O | | 9.2.3.5 | | YES | ignore |
| Primary CCPCH RSCP Delta | O | | 9.2.3.5a | | YES | ignore |

## 9.1.41 RADIO LINK PREEMPTION REQUIRED INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >**E-DCH MAC-d Flow Specific Information** | | 0..<maxnoofEDCHMACdFlows> | | | EACH | ignore |
| >>E-DCH MAC-d Flow ID | M | | 9.2.1.91 | | – | |
| **HS-DSCH MAC-d Flow Specific Information** | | *0..<maxnoofMACdFlows>* | | | EACH | ignore |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.30O | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of radio links for one UE |
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

## 9.1.42 RADIO LINK CONGESTION INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Congestion Cause | O | | 9.2.1.79 | | YES | ignore |
| **RL Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| **>DCH Rate Information** | | *1..<maxnoofDCHs>* | | | EACH | ignore |
| >>DCH ID | M | | 9.2.1.16 | | – | |
| >>Allowed Rate Information | O | | 9.2.1.2A | | – | |
| >**E-DCH MAC-d Flow Specific Information** | | 0..<maxnoofEDCHMACdFlows> | | | EACH | ignore |
| >>E-DCH MAC-d Flow ID | M | | 9.2.1.91 | | – | |
| >DCH Indicator For E-DCH-HSDPA Operation | O | | 9.2.2.67 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of Radio Links for one UE |
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

## 9.1.43 COMMON MEASUREMENT INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | reject |
| CHOICE *Common Measurement Object Type* | M | | | | YES | reject |
| *>Cell* | | | | | – | |
| >>Reference Cell Identifier | M | | UTRAN Cell Identifier 9.2.1.71 | May be a GERAN Cell Identifier | – | |
| >>Time Slot | O | | 9.2.1.56 | 3.84Mcps TDD and 7.68 Mcps TDD only | – | |
| >>Time Slot LCR | O | | 9.2.3.12a | 1.28Mcps TDD only | – | |
| **>>Neighbouring Cell Measurement Information** | | *0..<maxnoof MeasNCells >* | | UTRAN only | – | |
| >>>CHOICE *Neighbouring Cell Measurement Information* | | | | | – | |
| *>>>>Neighbouring FDD Cell Measurement Information* | | | | FDD only | – | |
| >>>>>Neighbouring FDD Cell Measurement Information | M | | 9.2.1.41G | | – | |
| *>>>>Neighbouring TDD Cell Measurement Information* | | | | 3.84Mcps TDD only | – | |
| >>>>>Neighbouring TDD Cell Measurement Information | M | | 9.2.1.41H | | – | |
| *>>>>Additional Neighbouring Cell Measurement Information* | | | | | – | |
| *>>>>>Neighbouring TDD Cell Measurement InformationLCR* | | | | 1.28Mcps TDD only | – | |
| >>>>>>Neighbouring TDD Cell Measurement InformationLCR | M | | 9.2.1.41Dd | | YES | reject |
| *>>>>Additional Neighbouring Cell Measurement Information 7.68Mcps* | | | | | – | |
| *>>>>>Neighbouring TDD Cell* | | | | 7.68Mcps TDD only | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Measurement Information 7.68 Mcps* | | | | | | |
| >>>>>>Neighbouring TDD Cell Measurement Information 7.68 Mcps | M | | 9.2.3.32 | | YES | reject |
| >>UARFCN | O | | 9.2.1.66 | Applicable to 1.28Mcps TDD only. | YES | ignore |
| >>UpPCH Position LCR | O | | 9.2.3.56 | Applicable to 1.28Mcps TDD only. | YES | ignore |
| Common Measurement Type | M | | 9.2.1.12C | | YES | reject |
| Measurement Filter Coefficient | O | | 9.2.1.41 | UTRAN only | YES | reject |
| Report Characteristics | M | | 9.2.1.48 | | YES | reject |
| SFN reporting indicator | M | | FN reporting indicator 9.2.1.28A | | YES | reject |
| SFN | O | | 9.2.1.52A | UTRAN only | YES | reject |
| Common Measurement Accuracy | O | | 9.2.1.12A | UTRAN only | YES | reject |
| Measurement Recovery Behavior | O | | 9.2.1.38A | UTRAN only | YES | ignore |
| GANSS Time ID | O | | 9.2.1.119a | This IE may only be present if the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning". If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning" and this IE is absent, the GANSS time is Galileo system time. | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofMeasNCell* | Maximum number of neighbouring cells on which measurements can be performed. |

## 9.1.44 COMMON MEASUREMENT INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE *Common Measurement Object Type* | O | | | Common Measurement Object Type that the measurement was initiated with. | YES | ignore |
| >*Cell* | | | | | – | |
| >>Common Measurement value | M | | 9.2.1.12D | | – | |
| SFN | O | | 9.2.1.52A | Common Measurement Time Reference, UTRAN only. | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| Common Measurement Achieved Accuracy | O | | Common Measurement Accuracy 9.2.1.12A | UTRAN only | YES | ignore |
| Measurement Recovery Support Indicator | O | | 9.2.1.38C | UTRAN only | YES | ignore |

## 9.1.45 COMMON MEASUREMENT INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.46 COMMON MEASUREMENT REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE *Common Measurement Object Type* | M | | | Common Measurement Object Type that the measurement was initiated with. | YES | ignore |
| >*Cell* | | | | | – | |
| >>Common Measurement Value Information | M | | 9.2.1.12E | | – | |
| SFN | O | | 9.2.1.52A | Common Measurement Time Reference, UTRAN only. | YES | ignore |
| *Measurement Recovery Reporting Indicator* | O | | 9.2.1.38B | UTRAN only | YES | ignore |

## 9.1.47 COMMON MEASUREMENT TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |

## 9.1.48 COMMON MEASUREMENT FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |

## 9.1.49 INFORMATION EXCHANGE INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | reject |
| CHOICE *Information Exchange Object Type* | M | | | | YES | reject |
| *>Cell* | | | | | – | |
| >>C-ID | M | | 9.2.1.6 | May be a GERAN cell identifier | – | |
| *>Additional Information Exchange Object Types* | | | | | – | |
| *>>GSM Cell* | | | | | – | |
| >>>CGI | M | | 9.2.1.5D | | – | |
| *>>MBMS Bearer Service* | | | | | – | |
| >>>**MBMS Bearer Service List** | | *1..<maxnoofMBMS>* | | | GLOBAL | reject |
| >>>>TMGI | M | | 9.2.1.80 | | – | |
| *>>MBMS Bearer Service in MBMS Cell* | | | | FDD only | GLOBAL | reject |
| >>>**MBMS Cell List** | | *1..<maxnoofcell>* | | | – | |
| >>>>C-ID | M | | 9.2.1.6 | Cell identifier of cell in RNC initiating Information Exchange Initiation procedure | – | |
| >>>>**MBMS Bearer Service List** | | *1..<maxnoofMBMS>* | | | – | |
| >>>>>TMGI | M | | 9.2.1.80 | | – | |
| *>>MBMS Cell* | | | | FDD only | GLOBAL | reject |
| >>>**MBMS Cell List** | | *1..<maxnoofcell>* | | | – | |
| >>>>C-ID | M | | 9.2.1.6 | Cell identifier of cell in receiving RNC not initiating Information Exchange Initiation procedure | – | |
| Information Type | M | | 9.2.1.31E | | YES | reject |
| Information Report Characteristics | M | | 9.2.1.31C | | YES | reject |

| Range bound | Explanation |
|---|---|
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |
| *Maxnoofcell* | Maximum number of cells that can be indicated in the corresponding IE. |

## 9.1.50 INFORMATION EXCHANGE INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| CHOICE *Information Exchange Object Type* | O | | | | YES | ignore |
| *>Cell* | | | | | - | |
| >>Requested Data Value | M | | 9.2.1.48A | | - | |
| *>Additional Information Exchange Object Types* | | | | | – | |
| *>>MBMS Bearer Service* | | | | | – | |
| >>>**MBMS Bearer Service List** | | *1..<maxnoofMBMS>* | | | GLOBAL | ignore |
| >>>>TMGI | M | | 9.2.1.80 | | – | |
| >>>>Requested Data Value | M | | 9.2.1.48A | | – | |
| *>>MBMS Bearer Service in MBMS Cell* | | | | FDD only | GLOBAL | ignore |
| >>>**MBMS Cell List** | | *1..<maxnoofcell>* | | | – | |
| >>>>C-ID | M | | 9.2.1.6 | Cell identifier of cell in RNC initiating Information Exchange Initiation procedure | – | |
| >>>>**MBMS Bearer Service List** | | *1..<maxnoofMBMS>* | | | – | |
| >>>>>TMGI | M | | 9.2.1.80 | | – | |
| >>>>>Requested Data Value | M | | 9.2.1.48A | | – | |
| *>>MBMS Cell* | | | | FDD only | GLOBAL | ignore |
| >>>**MBMS Cell List** | | *1..<maxnoofcell>* | | | – | |
| >>>>C-ID | M | | 9.2.1.6 | Cell identifier of cell in sending RNC not initiating Information Exchange Initiation procedure | – | |
| >>>>Requested Data Value | M | | 9.2.1.48A | | – | |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |
| *Maxnoofcell* | Maximum number of cells that can be indicated in the corresponding IE. |

## 9.1.51 INFORMATION EXCHANGE INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.52 INFORMATION REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| CHOICE *Information Exchange Object Type* | M | | | | YES | ignore |
| *>Cell* | | | | | – | |
| >>Requested Data Value Information | M | | 9.2.1.48B | | – | |
| *>Additional Information Exchange Object Types* | | | | | – | |
| *>>MBMS Bearer Service in MBMS Cell* | | | | FDD only | GLOBAL | ignore |
| **>>>MBMS Cell List** | | *1..<maxnoofcell>* | | | – | |
| >>>>C-ID | M | | 9.2.1.6 | Cell identifier of cell in receiving RNC initiating Information Exchange Initiation procedure | – | |
| **>>>>MBMS Bearer Service List** | | *1..<maxnoofMBMS>* | | | – | |
| >>>>>TMGI | M | | 9.2.1.80 | | – | |
| >>>>>Requested Data Value Information | M | | 9.2.1.48B | | – | |
| *>>MBMS Cell* | | | | FDD only | GLOBAL | ignore |
| **>>>MBMS Cell List** | | *1..<maxnoofcell>* | | | – | |
| >>>>C-ID | M | | 9.2.1.6 | Cell identifier of cell in sending RNC not initiating Information Exchange Initiation procedure | – | |
| >>>>Requested Data Value Information | M | | 9.2.1.48B | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |
| *Maxnoofcell* | Maximum number of cells that can be indicated in the corresponding IE. |

## 9.1.53 INFORMATION EXCHANGE TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |

## 9.1.54 INFORMATION EXCHANGE FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |

## 9.1.55 RESET REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| RNC-ID | M | | 9.2.1.50 | Identity of the sending RNC. If the *Extended RNC-ID* IE is included in the message, the *RNC-ID* IE shall be ignored. | YES | reject |
| CHOICE *Reset Indicator* | M | | | | YES | reject |
| >*Context* | | | | | – | |
| >>**Context Information** | | *1..<maxResetContext>* | | | EACH | reject |
| >>>CHOICE *Context Type* | M | | | | – | |
| >>>>*SRNTI* | | | | | – | |
| >>>>>S-RNTI | M | | 9.2.1.53 | | – | |
| >>>>*DRNTI* | | | | | – | |
| >>>>>D-RNTI | M | | 9.2.1.24 | | – | |
| >*All Contexts* | | | NULL | | – | |
| >*Context Group* | | | | | – | |
| >>**Context Group Information** | | *1..<maxResetContextGroups>* | | | EACH | reject |
| >>>S-RNTI Group | M | | 9.2.1.53a | | – | |
| Extended RNC-ID | O | | 9.2.1.50a | Identity of the sending RNC. The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |

| Range bound | Explanation |
|---|---|
| *maxResetContext* | Maximum number of contexts that can be reset by one RESET message. |
| *maxResetContextGroups* | Maximum number of context groups that can be reset by one RESET message. |

## 9.1.56 RESET RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| RNC-ID | M | | 9.2.1.50 | Identity of the sending RNC. If the *Extended RNC-ID* IE is included in the message, the *RNC-ID* IE shall be ignored. | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |
| Extended RNC-ID | O | | 9.2.1.50a | Identity of the sending RNC. The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |

## 9.1.57 RADIO LINK ACTIVATION COMMAND

### 9.1.57.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| **Delayed activation Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >Delayed Activation Update | M | | 9.2.1.19Ab | | – | |

### 9.1.57.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.46 | | YES | ignore |
| Transaction ID | M | | 9.2.1.62 | | – | |
| **Delayed activation Information** | | *1..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >Delayed Activation Update | M | | 9.2.1.19Ab | | – | |

# 9.1.58 RADIO LINK PARAMETER UPDATE INDICATION

## 9.1.58.1 FDD Message

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| HS-DSCH FDD Update Information | O | | 9.2.2.19c | | YES | ignore |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL Id | M | | 9.2.1.49 | | – | |
| >Phase Reference Update Indicator | O | | 9.2.2.27B | | – | |
| E-DCH FDD Update Information | O | | 9.2.2.19e | | YES | ignore |
| **Additional HS Cell Information RL Param Upd** | | *0..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. Max 1 in this 3GPP release. | EACH | ignore |
| >HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| >HS-DSCH FDD Secondary Serving Update Information | O | | 9.2.2.19ca | | – | |
| **Additional E-DCH Cell Information RL Param Upd** | | *0..<maxnoofEDCH-1>* | | For E-DCH on multiple frequencies in this DRNS. E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. | EACH | ignore |
| >Additional E-DCH FDD Update Information | M | | 9.2.2.122 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

## 9.1.58.2 TDD Message

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| HS-DSCH TDD Update Information | O | | 9.2.3.3ac | | YES | ignore |

## 9.1.59 UE MEASUREMENT INITIATION REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Allowed Queing Time | O | | 9.2.1.2 | | YES | reject |
| Measurement ID | M | | 9.2.1.37 | | YES | reject |
| UE Measurement Type | M | | 9.2.3.13Fh | | YES | reject |
| UE Measurement Timeslot information HCR | O | | 9.2.3.13Fe | 3.84 Mcps TDD only | YES | reject |
| UE Measurement Timeslot information LCR | O | | 9.2.3.13Ff | 1.28 Mcps TDD only | YES | reject |
| UE Measurement Timeslot information 7.68Mcps | O | | 9.2.3.33 | 7.68 Mcps TDD only | YES | reject |
| Measurement Filter Coefficient | O | | 9.2.1.36 | | YES | reject |
| UE Measurement Report Characteristics | M | | 9.2.3.13Fc | | YES | reject |
| UE Measurement Parameter Modification Allowed | O | | 9.2.3.13Fb | | YES | reject |

## 9.1.60 UE MEASUREMENT INITIATION RESPONSE [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Measurement Filter Coefficient | O | | 9.2.1.36 | | YES | reject |
| UE Measurement Report Characteristics | O | | 9.2.3.13Fc | | YES | reject |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.61 UE MEASUREMENT INITIATION FAILURE [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.62 UE MEASUREMENT REPORT [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| UE Measurement Value Information | M | | 9.2.3.13Fj | | YES | ignore |

## 9.1.63 UE MEASUREMENT TERMINATION REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |

## 9.1.64 UE MEASUREMENT FAILURE INDICATION [TDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |

## 9.1.65 IUR INVOKE TRACE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| Trace Reference | M | | 9.2.1.58c | | YES | ignore |
| UE Identity | M | | 9.2.1.66A | | YES | ignore |
| Trace Recording Session Reference | M | | 9.2.1.58b | | YES | ignore |
| **List Of Interfaces To Trace** | | *0..maxnoofInterfaces* | | | EACH | ignore |
| >Interface | M | | ENUMERATED (Iub, Iur,…) | | – | |
| Trace Depth | M | | 9.2.1.58a | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofInterfaces* | Maximum of Interfaces to be traced. |

## 9.1.66 IUR DEACTIVATE TRACE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| Trace Reference | M | | 9.2.1.58c | | YES | ignore |

## 9.1.67 MBMS ATTACH COMMAND

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **MBMS Bearer Service List** | | *1..<maxnoofMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| CHOICE *UE State* | O | | | | YES | ignore |
| >*CELL_FACH/CELL_PCH* | | | | | – | |
| >>D-RNTI | M | | 9.2.1.24 | | – | |
| >*URA_PCH* | | | | | – | |
| >>SRNC-ID | M | | RNC-ID 9.2.1.50 | If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored. | – | |
| >>URA-ID | M | | 9.2.1.70 | | – | |
| >>Extended SRNC-ID | O | | Extended RNC-ID 9.2.1.50a | The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |

| Range bound | Explanation |
|---|---|
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |

## 9.1.68 MBMS DETACH COMMAND

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| **MBMS Bearer Service List** | | *1..<maxnoofMBMS>* | | | GLOBAL | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| CHOICE *UE State* | O | | | | YES | ignore |
| >*CELL_FACH/CELL_PCH* | | | | | – | |
| >>D-RNTI | M | | 9.2.1.24 | | – | |
| >*URA_PCH* | | | | | – | |
| >>SRNC-ID | M | | RNC-ID 9.2.1.50 | If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored. | – | |
| >>URA-ID | M | | 9.2.1.70 | | – | |
| >>Extended SRNC-ID | O | | Extended RNC-ID 9.2.1.50a | The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |

| Range bound | Explanation |
|---|---|
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |

## 9.1.69 DIRECT INFORMATION TRANSFER

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| RNC-ID | M | | 9.2.1.50 | ID of an RNC which initiates the procedure. If the *Extended RNC-ID* IE is included in the message, the *RNC-ID* IE shall be ignored. | YES | ignore |
| Provided Information | M | | 9.2.1.85 | | YES | ignore |
| Extended RNC-ID | O | | 9.2.1.50a | The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |

## 9.1.70 ENHANCED RELOCATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Cause | M | | 9.2.1.5 | | YES | reject |
| Permanent NAS UE Identity | M | | 9.2.1.73 | | YES | reject |
| SRNC-ID | O | | RNC-ID 9.2.1.50 | If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored. | YES | reject |
| Extended SRNC-ID | O | | Extended RNC-ID 9.2.1.50a | The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |
| S-RNTI | M | | 9.2.1.53 | | YES | reject |
| RANAP Enhanced Relocation Information Request | M | | 9.2.1.124 | | YES | reject |

## 9.1.71 ENHANCED RELOCATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| RANAP Enhanced Relocation Information Response | M | | 9.2.1.125 | | YES | ignore |

## 9.1.72 ENHANCED RELOCATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

## 9.1.73 ENHANCED RELOCATION CANCEL

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Cause | M | | 9.2.1.5 | | YES | ignore |

## 9.1.74 ENHANCED RELOCATION SIGNALLING TRANSFER

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |

## 9.1.75 ENHANCED RELOCATION RELEASE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Released CN Domain | M | | 9.2.1.126 | | YES | ignore |

## 9.1.76 MBSFN MCCH INFORMATION (FDD)

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| MBSFN Cluster Identity | M | | 9.2.1.128 | | YES | ignore |
| **MCCH Message List** | | *1..<maxnoofMCCHMessages>* | | | YES | reject |
| >L3 Information | M | | 9.2.1.32 | See Note1 below. | – | |
| CFN | M | | 9.2.1.9 | | YES | reject |
| **MCCH Configuration Info** | | 0..1 | | | YES | ignore |
| >Secondary CCPCH system information MBMS | M | | 9.2.1.127 | | – | |
| **MBSFN Scheduling Transmission Time Interval info List** | | *0..< maxNrOfMBMSL3>* | | | YES | ignore |
| >TMGI | M | | 9.2.1.80 | | – | |
| >MBSFN Scheduling Transmission Time Interval | M | | 9.2.1.129 | | – | |
| Note 1: The IE Contains one of the following messages defined in ref. [16]: MBMS MODIFIED SERVICES INFORMATION, MBMS UNMODIFIED SERVICES INFORMATION, MBMS GENERAL INFORMATION, MBMS COMMON P-T-M RB INFORMATION, MBMS CURRENT Cell PTM RB INFORMATION. | | | | | | |

| Range bound | Explanation |
|---|---|
| *maxnoofMCCHMessages* | Maximum number of MCCH Messages simultaneous sent on MCCH |
| *maxNrOfMBMSL3* | Maximum number of MBMS service in L3 information |

## 9.1.77 SECONDARY UL FREQUENCY REPORT

### 9.1.77.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Activation Information | M | | 9.2.2.109 | | YES | ignore |

## 9.1.78 SECONDARY UL FREQUENCY UPDATE INDICATION

### 9.1.78.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Activation Information | M | | 9.2.2.109 | | YES | ignore |

# 9.2 Information Element Functional Definition and Contents

## 9.2.0 General

Subclause 9.2 presents the RNSAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is a contradiction between the tabular format in subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);
- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

## 9.2.1 Common Parameters

This subclause contains parameters that are common to FDD and TDD.

### 9.2.1.1 Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of transport channel resources in DRNS. DRNS may use the Allocation/Retention priority information of the transport channels composing the RL to prioritise requests for RL Setup/addition and reconfiguration. In similar way, DRNS may use the allocation/Retention priority information of the transport channels composing the RL to prioritise which RL shall be set to failure, in case prioritisation is possible. See Annex A.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Priority Level | M | | INTEGER(0. .15) | This IE indicates the priority of the request.<br>**Usage:**<br>Value "0" means "Spare"; It shall be treated as a logical error if received.<br>Values between 1 and 14 are ordered in decreasing order of priority, "1" being the highest and "14" the lowest.<br>Value "15" means "No Priority". |
| Pre-emption Capability | M | | ENUMERATED(shall not trigger pre-emption, may trigger pre-emption) | |
| Pre-emption Vulnerability | M | | ENUMERATED(not pre-emptable, pre-emptable) | |

### 9.2.1.2 Allowed Queuing Time

This parameter specifies the maximum queuing time that is allowed in the DRNS until the DRNS must start to execute the request.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Allowed Queuing Time | | | INTEGER(1. .60) | Unit: Seconds |

### 9.2.1.2A Allowed Rate Information

The *Allowed Rate Information* IE indicates the TFI corresponding to the highest allowed bit rate for the uplink and/or the downlink of a DCH. The SRNC is allowed to use any rate being lower than or equal to the rate corresponding to the indicated TFI.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Allowed UL Rate | O | | INTEGER(1. .maxTFcount ) | "1": TFI 0,<br>"2": TFI 1,<br>"3": TFI 2,<br>… |
| Allowed DL Rate | O | | INTEGER(1. .maxTFcount ) | "1": TFI 0,<br>"2": TFI 1,<br>"3": TFI 2,<br>… |

### 9.2.1.2B Altitude and Direction

This IE contains a description of Altitude and Direction.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Direction of Altitude | M | | ENUMERATED(Height, Depth) | |
| Altitude | M | | INTEGER( $0..2^{15}$-1) | The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <N+1, except for N=$2^{15}$-1 for which the range is extended to include all grater values of (a). |

### 9.2.1.2C Antenna Co-location Indicator

The Antenna Co-location Indicator indicates whether the antenna of the serving and neighbouring cells are approximately co-located.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Antenna Co-location Indicator | | | ENUMERATED(co-located,…) | |

### 9.2.1.2D Alternative Format Reporting Indicator

This IE indicates if DRNS may report a measurement using an alternative format.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Alternative Format Reporting Indicator | | | ENUMERATED (Alternative format is allowed, …) | |

### 9.2.1.3 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [3][35], this IE contains the identifier that is allocated at the DRNS and that is unique for each transport bearer under establishment to/from the DRNS.

If the Transport Layer Address contains an IP address [33], this IE contains the UDP port [34] intended to be used for the user plane transport.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Binding ID | | | OCTET STRING (1..4,…) | If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID. |

### 9.2.1.4 BLER

This Block Error Rate defines the target radio interface Transport Block Error Rate of the transport channel . BLER is used by the DRNS to determine the needed SIR targets, for admission control and power management reasons.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| BLER | | | INTEGER(-63..0) | Step 0.1. (Range –6.3…0). It is the Log10 of the BLER |

### 9.2.1.4A Block STTD Indicator

Void.

### 9.2.1.4B Burst Mode Parameters

The *Burst Mode Parameters* IE provides all the relevant information in order to able IPDL in the Burst mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Burst Start | M | | INTEGER(0..15) | See [10] and [22] |
| Burst Length | M | | INTEGER(10..25) | See [10] and [22] |
| Burst freq | M | | INTEGER(1..16) | See [10] and [22] |

### 9.2.1.5 Cause

The purpose of the cause information element is to indicate the reason for a particular event for the whole protocol.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Cause Group* | M | | | |
| *>Radio Network Layer* | | | | |
| >>Radio Network Layer Cause | M | | ENUMERATED<br>(Unknown C-ID,<br>Cell not Available,<br>Power Level not Supported,<br>UL Scrambling Code Already in Use,<br>DL Radio Resources not Available,<br>UL Radio Resources not Available,<br>Measurement not Supported For The Object,<br>Combining Resources Not Available,<br>Combining not Supported,<br>Reconfiguration not Allowed,<br>Requested Configuration not Supported,<br>Synchronisation Failure,<br>Requested Tx Diversity Mode not Supported,<br>Measurement Temporarily not Available,<br>Unspecified,<br>Invalid CM Settings,<br>Reconfiguration CFN not Elapsed,<br>Number of DL Codes Not Supported,<br>Dedicated Transport Channel Type not Supported,<br>DL Shared Channel Type not Supported,<br>UL Shared Channel Type not Supported,<br>Common Transport Channel Type not Supported,<br>UL Spreading Factor not Supported,<br>DL Spreading Factor not Supported,<br>CM not Supported,<br>Transaction not Supported by Destination Node B,<br>RL Already Activated/Allocated,<br>...,<br>Number of UL Codes Not Supported,<br>Cell reserved for operator use,<br>DPC Mode Change not Supported,<br>Information temporarily not available,<br>Information Provision not supported for the object,<br>Power Balancing status not compatible,<br>Delayed Activation not Supported,<br>RL Timing Adjustment Not Supported,<br>Unknown RNTI,<br>Measurement Repetition Rate not Compatible with Current Measurements,<br>UE not Capable to Implement Measurement,<br>F-DPCH not supported,<br>E-DCH not supported,<br>Continuous Packet Connectivity DTX-DRX operation not supported,<br>Continuous Packet Connectivity HS-SCCH less operation not supported,<br>MIMO not supported,<br>E-DCH TTI2ms not supported,<br>Continuous Packet Connectivity DTX-DRX operation not available,<br>Continuous Packet Connectivity UE DTX Cycle not available,<br>MIMO not available,<br>SixteenQAM UL not supported,<br>HS-DSCH MAC-d PDU Size Format not supported,<br>F-DPCH Slot Format operation not supported, | |

| | | | | |
|---|---|---|---|---|
| | | | E-DCH MAC-d PDU Size Format not available,<br>E-DPCCH Power Boosting not supported,<br>Trelocprep Expiry,<br>Relocation Cancelled,<br>Traffic Load In The Target Cell Higher Than In The Source Cell,<br>Time critical Relocation,<br>Resource optimisation relocation,<br>Relocation desirable for radio reasons ,<br>Directed Retry,<br>Reduce Load in Serving Cell,<br>No Iu CS UP relocation,<br>SixtyfourQAM DL and MIMO Combined not available,<br>Multi Cell operation not available,<br>Multi Cell operation not supported,<br>Semi-Persistent scheduling not supported,<br>Continuous Packet Connectivity DRX not supported,<br>Continuous Packet Connectivity DRX not available,<br>Enhanced Relocation not Supported,<br>Relocation Not Supported Due To PUESBINE Feature,<br>Relocation Failure In Target RNC,<br>Relocation Target not allowed,<br>Requested Ciphering and/or Integrity Protection Algorithms not Supported,<br>SixtyfourQAM DL and MIMO Combined not supported,<br>TX diversity for MIMO UE on DL Control Channels not available,<br>Single Stream MIMO not supported,<br>Single Stream MIMO not available,<br>Multi Cell operation with MIMO not available,<br>Multi Cell operation with MIMO not supported,<br>Multi Cell E-DCH operation not available,<br>Multi Cell E-DCH operation not supported,<br>Multi Cell operation with Single Stream MIMO not available,<br>Multi Cell operation with Single Stream MIMO not supported,<br>Cell Specific Tx Diversity Handling For Multi Cell Operation Not Available,<br>Cell Specific Tx Diversity Handling For Multi Cell Operation Not Supported) | |
| *>Transport Layer* | | | | |
| >>Transport Layer Cause | M | | ENUMERATED<br>(Transport Resource Unavailable,<br>Unspecified,<br>...) | |
| *>Protocol* | | | | |
| >>Protocol Cause | M | | ENUMERATED<br>(Transfer Syntax Error,<br>Abstract Syntax Error (Reject),<br>Abstract Syntax Error (Ignore and Notify),<br>Message not Compatible with Receiver State,<br>Semantic Error,<br>Unspecified,<br>Abstract Syntax Error (Falsely Constructed Message),...) | |
| *>Misc* | | | | |
| >>Miscellaneous Cause | M | | ENUMERATED<br>(Control Processing Overload,<br>Hardware Failure,<br>O&M Intervention, | |

| | | | | |
|---|---|---|---|---|
| | | | Not enough User Plane Processing Resources,<br>Unspecified,...) | |

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

| Radio Network Layer cause | Meaning |
|---|---|
| Cell not Available | The concerned cell is not available |
| Cell reserved for operator use | The concerned cell is reserved for operator use |
| Cell Specific Tx Diversity Handling For Multi Cell Operation Not Available | Cell specific tx diversity handling for multi cell operation not available in the concerned cell(s) |
| Cell Specific Tx Diversity Handling For Multi Cell Operation Not Supported | The concerned cell(s) do not support the cell specific tx diversity handling for multi cell operation |
| CM not Supported | The concerned cell(s) do not support Compressed Mode |
| Combining not Supported | The DRNS does not support the RL combining for the concerned cells |
| Combining Resources Not Available | The value of the received *Diversity Control Field* IE was set to "Must", but the DRNS cannot perform the requested combining |
| Common Transport Channel Type not Supported | The concerned cell(s) do not support the RACH and/or FACH Common Transport Channel Type |
| Continuous Packet Connectivity DTX-DRX operation not available | CPC resources for DTX-DRX operation not available in the concerned cell(s). |
| Continuous Packet Connectivity DRX not available | HSPA resources for DRX operation not available in the concerned cell(s). (for 1.28Mcps TDD only) |
| Continuous Packet Connectivity DRX not supported | The concerned cell(s) do not support the Continuous Packet Connectivity DRX operation (for 1.28Mcps TDD only) |
| Continuous Packet Connectivity DTX-DRX operation not Supported | The concerned cell(s) do not support the Continuous Packet Connectivity DTX-DRX operation |
| Continuous Packet Connectivity HS-SCCH less operation not Supported | The concerned cell(s) do not support the Continuous Packet Connectivity HS-SCCH less operation |
| Continuous Packet Connectivity UE DTX Cycle not available | CPC resources for the UE DTX Cycle not available in the concerned cell(s). |
| Dedicated Transport Channel Type not Supported | The concerned cell(s) do not support the Dedicated Transport Channel Type |
| Delayed Activation not Supported | The concerned cell(s) do not support delayed activation of RLs |
| Directed Retry | The reason for action is Directed Retry |
| DL Radio Resources not Available | The DRNS does not have sufficient DL radio resources available |
| DL SF not Supported | The concerned cell(s) do not support the requested DL SF |
| DL Shared Channel Type not Supported | The concerned cell(s) do not support the Downlink Shared Channel Type |
| DPC Mode Change not Supported | The concerned cells do not support the DPC mode changes |
| E-DCH MAC-d PDU Size Format not available | The selected E-DCH MAC-d PDU Size Format is not available in the concerned cell(s). |
| E-DCH not supported | The concerned cell(s) do not support E-DCH |
| E-DCH TTI2ms not supported | The concerned cell(s) do not support the E-DCH 2ms TTI operation |
| E-DPCCH Power Boosting not supported | The concerned cell(s) do not support the E-DPCCH Power Boosting. |
| Enhanced Relocation not Supported | The DRNS does not support the Enhanced Relocation. |
| F-DPCH not supported | The concerned cell(s) do not support the Fractional DPCH |
| F-DPCH Slot Format operation not supported | The concerned cell(s) do not support the F-DPCH Slot Format operation |
| HS-DSCH MAC-d PDU Size Format not supported | The concerned cell(s) do not support the selected HS-DSCH MAC-d PDU Size Format |

| | |
|---|---|
| Information Provision not supported for the object | The RNS doesn't support provision of the requested information for the concerned object types |
| Information temporarily not available | The RNS can temporarily not provide the requested information |
| Invalid CM Settings | The concerned cell(s) consider the requested Compressed Mode settings invalid |
| Measurement not Supported For The Object | At least one of the concerned cell(s) does not support the requested measurement on the concerned object type |
| Measurement Repetition Rate not Compatible with Current Measurements | The requested parameters for a forwarded UE measurement are not compatible with the current measurement schedule in the SRNC. |
| Measurement Temporarily not Available | The DRNS can temporarily not provide the requested measurement value |
| MIMO not available | MIMO resources not available in the concerned cell(s). |
| MIMO not supported | The concerned cell(s) do not support the MIMO operation |
| Multi Cell E-DCH operation not available | Multi cell E-DCH operation is not available in the concerned cell(s). |
| Multi Cell E-DCH operation not supported | The concerned cell(s) do not support Multi cell E-DCH operation |
| Multi Cell operation not available | Multi Cell operation resources not available in the concerned cell(s). |
| Multi Cell operation not supported | The concerned cell(s) do not support Multi Cell operation |
| Multi Cell operation with MIMO not available | Multi Cell operation with MIMO resources not available in the concerned cell(s). |
| Multi Cell operation with MIMO not supported | The concerned cell(s) do not support Multi Cell operationwith MIMO |
| Multi Cell operation with Single Stream MIMO not available | Multi Cell operation with Single Stream MIMO resources not available in the concerned cell(s). |
| Multi Cell operation with Single Stream MIMO not supported | The concerned cell(s) do not support Multi Cell operationwith Single Stream MIMO |
| No Iu CS UP relocation | The relocation is triggered by CS call and the source RNC has no Iu CS user plane. |
| Number of DL Codes not Supported | The concerned cell(s) do not support the requested number of DL codes |
| Number of UL Codes not Supported | The concerned cell(s) do not support the requested number of UL codes |
| Power Balancing status not compatible | The power balancing status in the SRNC is not compatible with that of the DRNC. |
| Power Level not Supported | A DL power level was requested which the concerned cell(s) do not support |
| Reconfiguration CFN not Elapsed | The requested action cannot be performed due to that a COMMIT message was received previously, but the concerned CFN has not yet elapsed |
| Reconfiguration not Allowed | The SRNC does currently not allow the requested reconfiguration |
| Reduce Load in Serving Cell | Load on serving cell needs to be reduced. |
| Relocation Cancelled | The reason for the action is relocation cancellation. |
| Relocation Desirable For Radio Reasons | The reason for requesting relocation is radio related. |
| Relocation Failure In Target RNC | Relocation failed due to a failure in target RNC. |
| Relocation Not Supported Due To PUESBINE Feature | The DRNS can not support the relocation due to the PUESBINE Feature. |
| Relocation Target not allowed | Relocation to the indicated target cell is not allowed for the UE in question. |
| Requested Ciphering And/Or Integrity Protection Algorithms Not Supported | The DRNS does not support the requested ciphering and/or integrity protection algorithms. |
| Requested Configuration not Supported | The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters,….. |
| Requested Tx Diversity mode not Supported | The concerned cell(s) do not support the requested transmit diversity mode |
| Resource Optimisation Relocation | The reason for requesting relocation is resource optimisation. |

| | |
|---|---|
| RL Already Activated/ Allocated | The DRNS has already allocated an RL with the requested RL ID for this UE Context |
| RL Timing Adjustment not Supported | The concerned cell(s) do not support adjustments of the RL timing |
| Semi-Persistent scheduling not supported | The concerned cell(s) do not support the Semi-Persistent scheduling operation (for 1.28Mcps TDD only) |
| SixteenQAM UL not Supported | The concerned cell(s) do not support the 16 QAM UL |
| SixtyfourQAM DL and MIMO Combined not available | SixtyfourQAM DL and MIMO Combined not available in the concerned cell(s) |
| SixtyfourQAM DL and MIMO Combined not supported | The DRNS does not support SixtyfourQAM DL and MIMO Combined for the concerned cells. |
| Synchronisation Failure | Loss of UL Uu synchronisation |
| Time Critical Relocation | Relocation is requested for time critical reason i.e. this cause value is reserved to represent all critical cases where the connection is likely to be dropped if relocation is not performed. |
| Traffic Load In The Target Cell Higher Than In The Source Cell | Relocation to reduce load in the source cell is rejected, as the target cell's traffic load is higher than that in the source cell. |
| Transaction not Supported by Destination Node B | The requested action cannot be performed due to lack of support of the corresponding action in the destination Node B |
| $T_{RELOCprep}$ Expiry | Relocation Preparation procedure is cancelled when timer $T_{RELOCprep}$ expires. |
| Single Stream MIMO not supported | The concerned cell(s) do not support the Single Stream MIMO. |
| Single Stream MIMO not available | Single Stream MIMO resources not available in the concerned cell(s). |
| TX diversity for MIMO UE on DL Control Channels not available | The DRNS does not have sufficient radio resources available to support transmit diversity on downlink control channels when the UE is configured in MIMO mode with P-CPICH & S-CPICH as phase references [8] |
| UE not Capable to Implement Measurement | The UE is not capable to initiate/report a requested measurement due to its current state or capabilities. |
| UL Radio Resources not Available | The DRNS does not have sufficient UL radio resources available |
| UL Scrambling Code Already in Use | The concerned UL scrambling code is already in use for another UE |
| UL SF not Supported | The concerned cell(s) do not support the requested minimum UL SF |
| UL Shared Channel Type not Supported | The concerned cell(s) do not support the Uplink Shared Channel Type |
| Unknown C-ID | The DRNS is not aware of a cell with the provided C-ID |
| Unknown RNTI | The SRNC or DRNC is not aware of a UE indicated with the provided RNTI |
| Unspecified | Sent when none of the above cause values applies but still the cause is Radio Network Layer related |

| **Transport Network Layer cause** | **Meaning** |
|---|---|
| Transport resource unavailable | **The required transport resources are not available** |
| Unspecified | Sent when none of the above cause values applies but still the cause is Transport Network Layer related |

| **Protocol cause** | **Meaning** |
|---|---|
| Abstract Syntax Error (Reject) | The received message included an abstract syntax error and the concerned criticality indicated "reject" (see subclause 10.3) |
| Abstract Syntax Error (Ignore and Notify) | The received message included an abstract syntax error and the concerned criticality indicated "ignore and notify" (see subclause 10.3) |
| Abstract syntax error (falsely constructed message) | The received message contained IEs or IE groups in wrong order or with too many occurrences (see subclause 10.3) |
| Message not Compatible with Receiver State | The received message was not compatible with the receiver state (see subclause 10.4) |
| Semantic Error | The received message included a semantic error (see subclause 10.4) |
| Transfer Syntax Error | The received message included a transfer syntax error (see subclause 10.2) |

| | |
|---|---|
| Unspecified | Sent when none of the above cause values applies but still the cause is Protocol related |

| **Miscellaneous cause** | **Meaning** |
|---|---|
| Control Processing Overload | DRNS control processing overload |
| Hardware Failure | DRNS hardware failure |
| Not enough User Plane Processing Resources | DRNS has insufficient user plane processing resources available |
| O&M Intervention | Operation and Maintenance intervention related to DRNS equipment |
| Unspecified | Sent when none of the above cause values applies and the cause is not related to any of the categories Radio Network Layer, Transport Network Layer or Protocol. |

### 9.2.1.5A Cell Geographical Area Identity (Cell GAI)

The Cell Geographical Area is used to identify the geographical area of a cell. The area is represented as a polygon. See ref. [25].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Cell GAI Geographical Co-ordinates** | | *1 .. <maxnoofPoints>* | | |
| >Latitude Sign | M | | ENUMERATED(North, South) | |
| >Degrees of Latitude | M | | INTEGER( $0..2^{23}-1$) | The IE value (N) is derived by this formula: $N \leq 2^{23} X /90 < N+1$ X being the latitude in degree (0°.. 90°) |
| >Degrees of Longitude | M | | INTEGER( $-2^{23}..2^{23}-1$) | The IE value (N) is derived by this formula: $N \leq 2^{24} X /360 < N+1$ X being the longitude in degree (-180°..+180°) |

| Range bound | Explanation |
|---|---|
| *maxnoofPoints* | Maximum no. of points in polygon. |

### 9.2.1.5B Cell Geographical Area Additional Shapes (Cell GAI Additional Shapes)

This IE is used to provide several descriptions of the geographical area of a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Cell GAI Additional Shapes* | | | | |
| *>GA Point With Uncertainty* | | | | |
| >>GA Point With Uncertainty | M | | 9.2.1.30A | Ellipsoid point with uncertainty circle |
| *>GA Ellipsoid point with uncertainty Ellipse* | | | | |
| >>GA Ellipsoid point with uncertainty Ellipse | M | | 9.2.1.30B | Ellipsoid point with uncertainty Ellipse |
| *>GA Ellipsoid point with altitude* | | | | |
| >>GA Ellipsoid point with altitude | M | | 9.2.1.30C | Ellipsoid point with altitude |
| *>GA Ellipsoid point with altitude and uncertainty Ellipsoid* | | | | |
| >>GA Ellipsoid point with altitude and uncertainty Ellipsoid | M | | 9.2.1.30D | Ellipsoid point with altitude and uncertainty Ellipsoid |
| *>GA Ellipsoid Arc* | | | | |
| >>GA Ellipsoid Arc | M | | 9.2.1.30E | Ellipsoid Arc |

### 9.2.1.5C Cell Capacity Class Value

The *Cell Capacity Class Value* IE contains the capacity class for both the uplink and downlink. *Cell Capacity Class Value* IE is the value that classifies the cell capacity with regards to the other cells. *Cell Capacity Class Value* IE only indicates resources that are configured for traffic purposes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink Cell Capacity Class Value | M | | INTEGER(1. .100,…) | Value 1 shall indicate the minimum uplink cell capacity, and 100 shall indicate the maximum uplink cell capacity. . There should be linear relation between uplink cell capacity and Uplink Cell Capacity Class Value. |
| Downlink Cell Capacity Class Value | M | | INTEGER(1. .100,…) | Value 1 shall indicate the minimum downlink cell capacity, and 100 shall indicate the maximum downlink cell capacity. There should be linear relation between downlink cell capacity and Downlink Cell Capacity Class Value. |

### 9.2.1.5D Cell Global Identifier (CGI)

The *Cell Global Identifier* IE contains the Cell Global Identity as defined in ref. [1].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **LAI** | | *1* | | |
| >PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br>-The PLMN Identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). |
| >LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |
| CI | M | | OCTET STRING (2) | |

### 9.2.1.6 Cell Identifier (C-ID)

The C-ID (Cell Identifier) is the identifier of a cell in one RNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| C-ID | | | INTEGER (0..65535) | |

### 9.2.1.7 Cell Individual Offset

Cell individual offset is an offset that will be applied by UE to the measurement results for a Primary-CPICH[FDD]/ Primary-CCPCH[TDD] or for GSM Carrier RSSI according to [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Individual Offset | | | INTEGER( -20..+20) | -20 -> -10dB<br>-19 -> -9.5dB<br>…<br>+20 -> +10dB |

### 9.2.1.8 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD and 7.68Mcps TDD – Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD – SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Parameter ID | | | INTEGER(0. .127,…) | |

### 9.2.1.9 CFN

Connection Frame Number for the radio connection, see ref. [17].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CFN | | | INTEGER(0. . 255) | |

### 9.2.1.10 CFN Offset

Void

### 9.2.1.11 CN CS Domain Identifier

Identification of the CN node in the CS Domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br>-The PLMN Identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |

### 9.2.1.11A CN Domain Type

Identifies the type of core network domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CN Domain Type | | | ENUMERATED(CS domain, PS domain, Don't care,…) | See in [16] |

### 9.2.1.12 CN PS Domain Identifier

Identification of the CN Node in the PS Domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br>-The PLMN Identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |
| RAC | M | | OCTET STRING (1) | |

## 9.2.1.12A Common Measurement Accuracy

The *Common Measurement Accuracy* IE indicates the accuracy of the common measurement.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Common Measurement Accuracy* | M | | | |
| >*$T_{UTRAN-GPS}$ Measurement Accuracy Class* | | | | |
| >>$T_{UTRAN-GPS}$ Measurement Accuracy Class | M | | $T_{UTRAN-GPS}$ Accuracy Class 9.2.1.59B | |
| >*$T_{UTRAN-GANSS}$ Measurement Accuracy Class* | | | | |
| >>$T_{UTRAN-GANSS}$ Measurement Accuracy Class | M | | $T_{UTRAN-GANSS}$ Accuracy Class 9.2.1.112 | |

## 9.2.1.12B Common Measurement Object Type

Void.

## 9.2.1.12C Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common Measurement Type | | | ENUMERATED (UTRAN GPS Timing of Cell Frames for UE Positioning , SFN-SFN Observed Time Difference, load, transmitted carrier power, received total wide band power, UL timeslot ISCP, …, RT Load, NRT Load Information, UpPTS interference, UTRAN GANSS Timing of Cell Frames for UE Positioning) | UL timeslot ISCP shall only be used by TDD.<br>For measurements, which are requested on the Iur-g interface, only load, RT Load and NRT Load information are used.<br>“UpPTS interference” is used by 1.28Mcps TDD only<br>“UpPTS interference” means “UpPCH interference” in the whole 25.423, refer to [14] and [22]. |

### 9.2.1.12D Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Common Measurement Value* | M | | | | – | |
| *> $T_{UTRAN-GPS}$ Measurement Value Information* | | | | UTRAN only | – | |
| >>$T_{UTRAN-GPS}$ Measurement Value Information | M | | 9.2.1.59D | | – | |
| *> SFN-SFN Measurement Value Information* | | | | UTRAN only | – | |
| >>SFN-SFN Measurement Value Information | M | | 9.2.1.52C | | – | |
| *>Load Value* | | | | | – | |
| >>Load Value | M | | 9.2.1.33A | | – | |
| *>Transmitted Carrier Power Value* | | | | UTRAN only | – | |
| >>Transmitted Carrier Power Value | M | | Transmitted Carrier Power 9.2.1.59A | | – | |
| *>Received Total Wide Band Power Value* | | | | UTRAN only | – | |
| >>Received Total Wide Band Power Value | M | | Received Total Wide Band Power 9.2.2.35A | | – | |
| *>UL Timeslot ISCP Value* | | | | TDD Only | – | |
| >>UL Timeslot ISCP Value | M | | UL Timeslot ISCP 9.2.3.13A | | – | |
| *>Additional Common Measurement Values* | | | | | – | |
| *>>RT Load Value* | | | | | – | |
| >>>RT Load Value | M | | 9.2.1.50B | | YES | ignore |
| *>>NRT Load Information Value* | | | | | – | |
| >>>NRT Load Information Value | M | | 9.2.1.41I | | YES | ignore |
| *>>UpPTS interference* | | | | 1.28Mcps TDD Only | – | |
| >>>UpPTS interference Value | M | | INTEGER (0..127,…) | According to mapping in [24] | YES | reject |
| *>> $T_{UTRAN-GANSS}$ Measurement Value Information* | | | | UTRAN only | – | |
| >>>$T_{UTRAN-GANSS}$ Measurement Value Information | M | | 9.2.1.114 | | YES | reject |

## 9.2.1.12E Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Measurement Availability* | M | | | |
| *>Measurement Available* | | | | |
| >>Common Measurement Value | M | | 9.2.1.12D | |
| *>Measurement not Available* | | | NULL | |

## 9.2.1.12F Common Transport Channel Resources Initialisation Not Required

If present, this IE indicates that as far as the DRNC is concerned, there is no need to initiate a Common Transport Channel Resources Initialisation procedure if the SRNC wants to allocate common transport channel resources in the new cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common Transport Channel Resources Initialisation Not Required | | | ENUMERATED(Not Required) | |

## 9.2.1.12G Coverage Indicator

The Coverage Indicator indicates whether the serving and the neighbouring cell are overlapped, i.e. the cells have approximately same coverage area or whether the neighbouring cell covers or contained in the serving cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Coverage Indicator | | | ENUMERATED(Overlap, Covers, Contained in,…) | |

## 9.2.1.13 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by an RNC when parts of a received message have not been comprehended or were missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the *Criticality Diagnostics* IE, see Annex C.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Procedure ID** | | 0..1 | | Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error | – | |
| >Procedure Code | M | | INTEGER(0..255) | | – | |
| >Ddmode | M | | ENUMERATED(FDD, TDD, Common) | Common = common to FDD and TDD. Common Ddmode is also applicable for Iur-g procedures listed in section 7. | – | |
| Triggering Message | O | | ENUMERATED(initiating message, successful outcome, unsuccessful outcome, outcome) | The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication. | – | |
| Procedure Criticality | O | | ENUMERATED(reject, ignore, notify) | This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). | – | |
| Transaction ID | O | | Transaction ID | | – | |
| **Information Element Criticality Diagnostics** | | *0..<max noof errors>* | | | – | |
| >IE Criticality | M | | ENUMERATED(reject, ignore, notify) | The IE Criticality is used for reporting the criticality of the triggering IE. The value “Ignore” shall never be used. | – | |
| >IE ID | M | | INTEGER(0..65535) | The IE ID of the not understood or missing IE as defined in the ASN.1 part of the specification. | – | |
| >Repetition Number | O | | INTEGER(0..255) | The *Repetition Number* IE gives<br>• in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence<br>• in case of a missing IE: The number of occurrences up to but not including the missing occurrence.<br>Note: All the counted | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them. | | |
| >Message Structure | O | | 9.2.1.39A | The *Message Structure* IE describes the structure in which the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message. | YES | ignore |
| >Type of Error | M | | ENUMERATED( not understood, missing, …) | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnooferrors* | Maximum number of IE errors allowed to be reported with a single message. |

### 9.2.1.14 C-RNTI

C-RNTI (Cell RNTI) is the UE identifier allocated by the DRNS to be used over the radio interface. It is unique in the cell. One UE Context has one unique C-RNTI value allocated in the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| C-RNTI | | | INTEGER(0. .65535) | |

### 9.2.1.14A CTFC

The CTFC is an integer number calculated in accordance with [16], subclause 14.10. Regarding the channel ordering, for all transport channels, 'TrCH1' corresponds to the transport channel having the lowest transport channel identity among all configured transport channels on this CCTrCH. 'TrCH2' corresponds to the transport channel having the next lowest transport channel identity, and so on.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *CTFC Format* | | | | |
| *>2 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..3) | |
| *>4 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..15) | |
| *>6 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..63) | |
| *>8 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..255) | |
| *>12 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..4095) | |
| *>16 bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..65535) | |
| *>max nb bits long* | | | | |
| >>CTFC value | M | | INTEGER (0..maxCTFC) | |

| Range Bound | Explanation |
|---|---|
| MaxCTFC | Maximum number of the CTFC value is calculated according to the following:<br>$\sum_{i=1}^{I}(L_i - 1)P_i$<br>with the notation according to ref. [16] |

### 9.2.1.15 DCH Combination Indicator

Void

### 9.2.1.16 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DCH ID | | | INTEGER (0..255) | |

### 9.2.1.16A DCH Information Response

The *DCH Information* IE provides information for DCHs that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DCH Information Response** | | *1..<maxnoofDCHs>* | | Several DCHs belonging to the same set of coordinated DCHs may be included. | – | |
| >DCH ID | M | | 9.2.1.16 | | – | |
| >Binding ID | O | | 9.2.1.3 | | – | |
| >Transport Layer Address | O | | 9.2.1.62 | | – | |
| >Allowed Rate Information | O | | 9.2.1.2A | | YES | ignore |
| >Transport Bearer Not Setup Indicator | O | | 9.2.2.4T | FDD Only | YES | Ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |

### 9.2.1.17 Dedicated Measurement Object Type

Void.

### 9.2.1.18 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Dedicated Measurement Type | | | ENUMERATED(SIR, SIR Error, Transmitted Code Power, RSCP, Rx Timing Deviation, Round Trip Time, …, Rx Timing Deviation LCR, Angle Of Arrival LCR, HS-SICH Reception Quality, Rx Timing Deviation 768, Rx Timing Deviation 384 Extended) | RSCP and HS-SICH Receptions Quality are used by TDD only, Rx Timing Deviation and Rx Timing Deviation 384 Extended are used by 3.84 Mcps TDD only, Rx Timing Deviation LCR is used by 1.28 TDD only, Round Trip Time, SIR Error are used by FDD only. Angle Of Arrival LCR is used by 1.28Mcps TDD only. Rx Timing Deviation 768 is used by 7.68Mcps TDD only. |

NOTE: For definitions of the measurement types refer to ref. [11] and [14].

### 9.2.1.19 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Dedicated Measurement Value* | M | | | | – | |
| *>SIR Value* | | | | | – | |
| >>SIR Value | M | | INTEGER(0..63) | According to mapping in ref. [23] and [24] | – | |
| *>SIR Error Value* | | | | FDD Only | – | |
| >>SIR Error Value | M | | INTEGER(0..125) | According to mapping in [23] | – | |
| *>Transmitted Code Power Value* | | | | | – | |
| >>Transmitted Code Power Value | M | | INTEGER(0..127) | According to mapping in ref. [23] and [24] Values 0 to 9 and 123 to 127 shall not be used. | – | |
| *>RSCP* | | | | TDD Only | – | |
| >>RSCP | M | | INTEGER(0..127) | According to mapping in ref. [24] | – | |
| *>Rx Timing Deviation Value* | | | | 3.84Mcps TDD Only | – | |
| >>Rx Timing Deviation | M | | INTEGER(0..8191) | According to mapping in [24] | – | |
| *>Round Trip Time* | | | | FDD Only | – | |
| >>Round Trip Time | M | | INTEGER(0..32767) | According to mapping in [23] | – | |
| *>Additional Dedicated Measurement Values* | | | | | – | |
| *>>Rx Timing Deviation Value LCR* | | | | 1.28Mcps TDD Only | YES | reject |
| >>>Rx Timing Deviation LCR | M | | INTEGER(0..511) | According to mapping in [24] | – | |
| *>>Angle of Arrival Value LCR* | | | | 1.28Mcps TDD only | YES | reject |
| >>>AOA LCR | M | | INTEGER(0..719) | According to mapping in [24] | – | |
| >>>AOA LCR Accuracy Class | M | | ENUMERATED(A, B, C, D, E, F, G, H,...) | According to mapping in [24] | – | |
| *>>HS-SICH reception quality* | | | | Applicable to TDD only | – | |
| **>>>HS-SICH reception quality Value** | | *1* | | | YES | reject |
| >>>>Failed HS-SICH | M | | INTEGER (0..20) | According to mapping in [24] | – | |
| >>>Missed HS-SICH | M | | INTEGER (0..20) | According to mapping in [24] | – | |
| >>>Total HS-SICH | M | | INTEGER (0..20) | According to mapping in [24] | – | |
| *>>Rx Timing Deviation* | | | | 7.68Mcps | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Value 7.68Mcps* | | | | TDD Only | | |
| >>>Rx Timing Deviation 7.68Mcps | M | | INTEGER( 0..65535) | According to mapping in [24] | – | |
| *>>Rx Timing Deviation Value 3.84Mcps Extended* | | | | 3.84 Mcps TDD Only | YES | reject |
| >>>Rx Timing Deviation 3.84Mcps Extended | M | | INTEGER( 0..32767) | According to mapping in [24] | – | |
| >>Extended Round Trip Time | | | | FDD Only | YES | ignore |
| >>>Extended Round Trip Time Value | M | | INTEGER (32767..10 3041) | Continuation of intervals with step size as defined in [23]. | – | |

## 9.2.1.19A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message and if provided also the Dedicated Measurement Value itself.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Measurement Availability Indicator* | M | | | | – | |
| *>Measurement Available* | | | | | – | |
| >>Dedicated Measurement Value | M | | 9.2.1.19 | | – | |
| >>CFN | O | | 9.2.1.9 | Dedicated Measuremen t Time Reference | – | |
| *>Measurement not Available* | | | NULL | | – | |

## 9.2.1.19Aa Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Delayed Activation* | M | | | |
| *>CFN* | | | | |
| >>Activation CFN | M | | CFN 9.2.1.7 | |
| *>Separate Indication* | | | NULL | |

## 9.2.1.19Ab Delayed Activation Update

The *Delayed Activation Update* IE indicates a change of the activation of the DL power for a specific RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Delayed Activation Update* | M | | | |
| *>Activate* | | | | |
| >>CHOICE *Activation Type* | M | | | |
| *>>>Synchronised* | | | | |
| >>>>Activation CFN | M | | CFN 9.2.1.7 | |
| *>>>Unsynchronised* | | | NULL | |
| >>Initial DL TX Power | M | | DL Power 9.2.1.21 | |
| >>First RLS Indicator | O | | 9.2.2.16A | FDD Only |
| >>Propagation Delay | O | | 9.2.2.35 | FDD Only |
| >>Extended Propagation Delay | O | | 9.2.2.33a | FDD Only |
| *>Deactivate* | | | | |
| >>CHOICE *Deactivation type* | M | | | |
| *>>>Synchronised* | | | | |
| >>>>Deactivation CFN | M | | CFN 9.2.1.7 | |
| *>>>Unsynchronised* | | | NULL | |

## 9.2.1.19B DGPS Corrections

The *DGPS Corrections* IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [31].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| GPS TOW | M | | INTEGER(0..604799) | Time in seconds. This field indicates the baseline time for which the corrections are valid | - | |
| Status/Health | M | | ENUMERATED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data) | This field indicates the status of the differential corrections | - | |
| **Satellite DGPS Corrections Information** | | *1..<maxNoSat>* | | | - | |
| >SatID | M | | SAT ID 9.2.1.50A | | - | |
| >IODE | M | | BIT STRING(8) | This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eight-bit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations. | - | |
| >UDRE | M | | ENUMERATED (UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE,...) | User Differential Range Error. This field provides an estimate of the uncertainty (1-σ) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite | - | |
| >PRC | M | | INTEGER( -2047..2047) | Scaling factor 0.32 meters | - | |
| >Range Correction Rate | M | | INTEGER(-127.. 127) | Scaling factor 0.032 m/s | - | |
| >DGNSS Validity Period | O | | 9.2.1.138 | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxNoSat* | Maximum number of satellites for which information can be provided |

## 9.2.1.19C Discard Timer

The *Discard Timer* IE defines the time to live for a MAC-hs SDU starting from the instant of its arrival into an HSDPA Priority Queue. The DRNS shall use this information to discard out-of-date MAC-hs SDUs from the HSDPA Priority Queues.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| Discard Timer | | | ENUMERATED (20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 300, 400, 500, 750, 1000, 1250, 1500, 1750, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 7500, …) | Unit: ms |

### 9.2.1.20 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Diversity Control Field | | | ENUMERATED(May, Must, Must not, …) | |

### 9.2.1.21 Diversity Indication

Void.

### 9.2.1.21A DL Power

The *DL Power* IE indicates a power level relative to the [FDD – primary CPICH power] [TDD – PCCPCH power] configured in a cell. [FDD – If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols. If referred to an F-DPCH, it indicates the Reference F-DPCH TX Power.] If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD – primary CPICH power] [TDD – PCCPCH power] configured in a cell.

[TDD – If referred to a DPCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Power | | | INTEGER (-350..150) | Value = DL Power /10<br>Unit dB<br>Range –35.0 .. +15.0<br>Step 0.1dB |

### 9.2.1.22 Downlink SIR Target

Void

### 9.2.1.23 DPCH Constant Value

DPCH Constant Value is the power margin used by a UE to set the proper uplink power.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DPCH Constant Value | | | INTEGER (-10..10) | Unit dB<br>Granularity 1 dB. |

### 9.2.1.24 D-RNTI

The D-RNTI identifies the UE Context in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| D-RNTI | | | INTEGER(0..2^20 –1) | |

### 9.2.1.25 D-RNTI Release Indication

The D-RNTI Release Indication indicates whether or not a DRNC shall release the D-RNTI allocated for a particular UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| D-RNTI Release Indication | | | ENUMERATED(Release D-RNTI, not Release D-RNTI) | |

### 9.2.1.26 DRX Cycle Length Coefficient

The DRX Cycle Length Coefficient is used as input for the formula to establish the paging occasions to be used in DRX.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DRX Cycle Length Coefficient | | | INTEGER (3..9) | Refers to ‘k’ in the formula as specified in ref. [15], Discontinuous Reception. |

### 9.2.1.26A DSCH ID

Void.

### 9.2.1.26Aa DSCH Initial Window Size

Void.

### 9.2.1.26B DSCH Flow Control Information

Void.

### 9.2.1.26Ba DSCH-RNTI

Void.

### 9.2.1.26Bb Extended GSM Cell Individual Offset

Extended GSM Cell individual offset is an offset that will be applied by UE to the measurement results for GSM carrier RSSI according to [16]. It shall be used when the offset exceeds the range of values that can be indicated using the *Cell Individual Offset* IE (Subclause 9.2.1.7).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Extended GSM Cell Individual Offset | | | INTEGER (-50..-11 \| 11..50) | Unit in dB. Step size is 1 dB. |

### 9.2.1.26C FACH Flow Control Information

The *FACH Flow Control Information* IE provides flow control information for each scheduling priority class for the FACH FP over Iur.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **FACH Flow Control Information** | | *1..16* | | | – | |
| >FACH Scheduling Priority | M | | Scheduling Priority Indicator 9.2.1.51A | | – | |
| **>MAC-c/sh SDU Length** | | *1..<maxNb MAC-c/shSDULength>* | | | – | |
| >>MAC-c/sh SDU Length | M | | 9.2.1.34 | | – | |
| >FACH Initial Window Size | M | | 9.2.1.27 | | – | |

| Range bound | Explanation |
|---|---|
| *maxNbMAC-c/shSDULength* | Maximum number of different MAC-c/sh SDU lengths. |

### 9.2.1.27 FACH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before an acknowledgement is received from the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FACH Initial Window Size | | | INTEGER(0..255) | Number of frames (MAC-c/sh SDUs.)<br>255 = Unlimited number of FACH data frames. |

### 9.2.1.28 FACH Priority Indicator

Void

### 9.2.1.28A FN Reporting Indicator

Frame Number reporting indicator.

Indicates if the SFN or CFN shall be included together with the reported measurement value.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FN reporting indicator | | | ENUMERATED(FN reporting required, FN reporting not required) | |

### 9.2.1.29 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH, [TDD – DSCH] for temporary restriction of the allocated resources due overload reason.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Frame Handling Priority | | | INTEGER (0..15) | 0=Lowest Priority,<br>…<br>15=Highest Priority |

### 9.2.1.30 Frame Offset

Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame Offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Frame Offset | | | INTEGER (0..255) | Frames |

### 9.2.1.30A GA Point with Uncertainty

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Uncertainty Code | M | | INTEGER( 0..127) | The uncertainty "r" is derived from the "uncertainty code" k by<br>$r = 10x(1.1^{k}-1)$ |

### 9.2.1.30B GA Ellipsoid Point with Uncertainty Ellipse

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Uncertainty Ellipse | M | | 9.2.1.68A | |
| Confidence | M | | INTEGER( 0..127) | |

### 9.2.1.30C GA Ellipsoid Point with Altitude

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |

### 9.2.1.30D GA Ellipsoid Point with Altitude and Uncertainty Ellipsoid

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |
| Uncertainty Ellipse | M | | 9.2.1.68A | |
| Uncertainty Altitude | M | | INTEGER( 0..127) | |
| Confidence | M | | INTEGER( 0..127) | |

### 9.2.1.30E GA Ellipsoid Arc

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Inner radius | M | | INTEGER( $0..2^{16}$-1) | The relation between the value (N) and the radius I in meters it describes is $5N \leq r < 5(N+1)$, except for $N=2^{16}-1$ for which the range is extended to include all grater values of I. |
| Uncertainty radius | M | | INTEGER( 0..127) | The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^k-1)$ |
| Offset angle | M | | INTEGER( 0..179) | The relation between the value (N) and the angle (a) in degrees it describes is $2N \leq a < 2(N+1)$ |
| Included angle | M | | INTEGER( 0..179) | The relation between the value (N) and the angle (a) in degrees it describes is $2N < a \leq 2(N+1)$ |
| Confidence | M | | INTEGER( 0..127) | |

### 9.2.1.30F Geographical Coordinates

This IE contains the description of geographical coordinates.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Latitude Sign | M | | ENUMERATED(North, South) | |
| Degrees Of Latitude | M | | INTEGER( $0..2^{23}$-1) | The IE value (N) is derived by this formula:<br>$N \leq 2^{23} X /90 < N+1$<br>X being the latitude in degree (0°.. 90°) |
| Degrees Of Longitude | M | | INTEGER( $-2^{23}..2^{23}$-1) | The IE value (N) is derived by this formula:<br>$N \leq 2^{24} X /360 < N+1$<br>X being the longitude in degree (-180°..+180°) |

## 9.2.1.30Fa GERAN Cell Capability

The *GERAN Cell Capability* IE is used to transfer the capabilities of a certain GERAN cell via the Iur interface.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| GERAN Cell Capability | M | | BIT STRING (16) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.<br>The first bit: A/Gb mode.<br>The second bit: Iu mode.<br>Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

## 9.2.1.30Fb GERAN Classmark

The *GERAN Classmark* IE is used to transfer the capabilities of a certain GERAN Iu-mode capable cell via the Iur interface.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| GERAN Classmark | M | | OCTET STRING | Contents defined in [38] |

## 9.2.1.30Fc GERAN System Information

The *GERAN System Information* IE provides GERAN specific information.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **GERAN System Info** | | *1..<maxNrOfGERANSI>* | | |
| >GERAN System Info Block | M | | OCTET STRING (1..23) | The first octet contains octet 1 of the GERAN system information block, the second octet contains octet 2 of the GERAN system information block and so on. |

| Range bound | Explanation |
|---|---|
| *maxNrOfGERANSI* | Maximum number of GERAN SI blocks that can be provided as part of NACC information |

## 9.2.1.30G GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [30].

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $WN_a$ | M | | BIT STRING(8) | |
| **Satellite Almanac Information** | M | *1..<maxNoOfSatAlmanac>* | | See Note 1. |
| >DataID | M | | INTEGER (0..3) | |
| >SatID | M | | SAT ID 9.2.1.50A | |
| >e | M | | BIT STRING(16) | |
| >$t_{oa}$ | M | | BIT STRING(8) | |
| >$\delta i$ | M | | BIT STRING(16) | |
| >OMEGADOT | M | | BIT STRING(16) | |
| >SV Health | M | | BIT STRING(8) | |
| >$A^{1/2}$ | M | | BIT STRING(24) | |
| >$OMEGA_0$ | M | | BIT STRING(24) | |
| >$M_0$ | M | | BIT STRING(24) | |
| >$\omega$ | M | | BIT STRING(24) | |
| >$af_0$ | M | | BIT STRING(11) | |
| >$af_1$ | M | | BIT STRING(11) | |
| SV Global Health | O | | BIT STRING(364) | |
| Note 1: This information element is a simplified representation of the ASN.1 description. Repetitions 1 through maxNoSat and repetitions maxNoSat+1 through maxNoOfSatAlmanac are represented by separate ASN.1 structures with different criticality. | | | | |

| Range Bound | Explanation |
|---|---|
| *maxNoOfSatAlmanac* | Maximum number of satellite almanacs for which information can be provided |

### 9.2.1.30H GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [30].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $\alpha_0$ | M | | BIT STRING(8) | |
| $\alpha_1$ | M | | BIT STRING(8) | |
| $\alpha_2$ | M | | BIT STRING(8) | |
| $\alpha_3$ | M | | BIT STRING(8) | |
| $\beta_0$ | M | | BIT STRING(8) | |
| $\beta_1$ | M | | BIT STRING(8) | |
| $\beta_2$ | M | | BIT STRING(8) | |
| $\beta_3$ | M | | BIT STRING(8) | |

### 9.2.1.30I GPS Navigation Model and Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [30].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Navigation Message 1to3** | | *1..<maxNoSat>* | | |
| >Transmission TOW | M | | INTEGER0..1048575) | Time of the Week when the message is broadcast. |
| >SatID | M | | SAT ID 9.2.1.50A | |
| >TLM Message | M | | BIT STRING(14) | |
| >Tlm Revd I | M | | BIT STRING(2) | |
| >HO-Word | M | | BIT STRING(22) | |
| >WN | M | | BIT STRING(10) | |
| >C/A or P on L2 | M | | BIT STRING(2) | |
| >User Range Accuracy Index | M | | BIT STRING(4) | |
| >SV Health | M | | BIT STRING(6) | |
| >IODC | M | | BIT STRING(10) | |
| >L2 P Data Flag | M | | BIT STRING(1) | |
| >SF 1 Reserved | M | | BIT STRING(87) | |
| >$T_{GD}$ | M | | BIT STRING(8) | |
| >$t_{oc}$ | M | | BIT STRING(16) | |
| >$af_2$ | M | | BIT STRING(8) | |
| >$af_1$ | M | | BIT STRING(16) | |
| >$af_0$ | M | | BIT STRING(22) | |
| >$C_{rs}$ | M | | BIT STRING(16) | |
| >$\Delta n$ | M | | BIT STRING(16) | |
| >$M_0$ | M | | BIT STRING(32) | |
| >$C_{uc}$ | M | | BIT STRING(16) | |
| >e | M | | BIT STRING(32) | |
| >$C_{us}$ | M | | BIT STRING(16) | |
| >$(A)^{1/2}$ | M | | BIT STRING(32) | |
| >$t_{oe}$ | M | | BIT STRING(16) | |
| >Fit Interval Flag | M | | BIT STRING(1) | |
| >AODO | M | | BIT STRING(5) | |
| >$C_{ic}$ | M | | BIT STRING(16) | |
| >$OMEGA_0$ | M | | BIT STRING(32) | |
| >$C_{is}$ | M | | BIT STRING(16) | |
| >$i_0$ | M | | BIT STRING(32) | |
| >$C_{rc}$ | M | | BIT STRING(16) | |
| >$\omega$ | M | | BIT STRING(32) | |
| >OMEGAdot | M | | BIT STRING(24) | |
| >Idot | M | | BIT STRING(14) | |
| >Spare/zero fill | M | | BIT STRING(20) | |

| Range Bound | Explanation |
|---|---|
| *maxNoSat* | Maximum number of satellites for which information can be provided |

## 9.2.1.30J GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [30].

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Bad Satellites Presence* | M | | | |
| *>Bad Satellites* | | | | |
| **>>Satellite Information** | | *1..<maxNoSat>* | | |
| >>>BadSatID | M | | SAT ID 9.2.1.50A | |
| *>No Bad Satellites* | | | NULL | |

| Range Bound | Explanation |
|---|---|
| *MaxNoSat* | Maximum number of satellites for which information can be provided |

## 9.2.1.30K GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |

## 9.2.1.30L GPS UTC Model

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [30].

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $A_1$ | M | | BIT STRING(24) | |
| $A_0$ | M | | BIT STRING(32) | |
| $t_{ot}$ | M | | BIT STRING(8) | |
| $\Delta t_{LS}$ | M | | BIT STRING(8) | |
| $WN_t$ | M | | BIT STRING(8) | |
| $WN_{LSF}$ | M | | BIT STRING(8) | |
| DN | M | | BIT STRING(8) | |
| $\Delta t_{LSF}$ | M | | BIT STRING(8) | |

## 9.2.1.30M Guaranteed Rate Information

The *Guaranteed Rate Information* IE indicates the TFI corresponding to the guaranteed bit rate for the uplink and/or the downlink of a DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Guaranteed UL Rate | O | | INTEGER(1. .maxTFcount ) | "1": TFI 0,<br>"2": TFI 1,<br>"3": TFI 2,<br>… |
| Guaranteed DL Rate | O | | INTEGER(1. .maxTFcount ) | "1": TFI 0,<br>"2": TFI 1,<br>"3": TFI 2,<br>… |

## 9.2.1.30N HCS Prio

The HCS Prio is the characteristics of the cell as defined in [15].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HCS Prio | | | INTEGER (0..7) | 0=Lowest Priority,<br>…<br>7=Highest Priority |

### 9.2.1.30NA HS-DSCH Information To Modify Unsynchronised

The *HS-DSCH Information To Modify Unsynchronised* IE is used for modification of HS-DSCH information in a UE Context with the Unsynchronised Radio Link Reconfiguration procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-DSCH MAC-d Flow Specific Information | | *0..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.30O | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| >Traffic Class | O | | 9.2.1.58A | | – | |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >TNL QoS | O | | 9.2.1.56A | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| **Priority Queue Information** | | *0..<maxnoofPrioQueues>* | | | – | |
| >Priority Queue ID | M | | 9.2.1.45A | | – | |
| >Scheduling Priority Indicator | O | | 9.2.1.51A | | – | |
| >Discard Timer | O | | 9.2.1.19C | | – | |
| >MAC-hs Guaranteed Bit Rate | O | | 9.2.1.34Aa | | – | |
| CQI Power Offset | O | | 9.2.2.24b | For FDD only | – | |
| ACK Power Offset | O | | 9.2.2.b | For FDD only | – | |
| NACK Power Offset | O | | 9.2.2.26a | For FDD only | – | |
| HS-SCCH Power Offset | O | | 9.2.2.19d | For FDD only | – | |
| TDD ACK NACK Power Offset | O | | 9.2.3.7I | For TDD only | – | |
| HARQ Preamble Mode | O | | 9.2.2.57 | For FDD only | YES | ignore |
| MIMO Mode Indicator | O | | 9.2.1.135 | For FDD and 1.28Mcps TDD only | YES | reject |
| Sixtyfour QAM Usage Allowed Indicator | O | | 9.2.2.79A | For FDD only | YES | ignore |
| Enhanced HS Serving CC Abort | O | | ENUMERATED (Abort Enhanced HS Serving CC, …) | For FDD only | YES | reject |
| UE Support Indicator Extension | O | | 9.2.2.103 | | YES | ignore |
| Power Offset For S-CPICH for MIMO Request Indicator | O | | 9.2.2.105 | For FDD only | YES | ignore |
| Single Stream MIMO Mode Indicator | O | | 9.2.2.107 | For FDD only | YES | reject |

## 9.2.1.30Na HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iur.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-DSCH Initial Capacity Allocation | | *1..< maxnoof PrioQueues>* | | | – | |
| >Scheduling Priority Indicator | M | | 9.2.1.51A | | – | |
| >Maximum MAC-d PDU Size | M | | MAC-d PDU Size 9.2.1.34A | Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present. | – | |
| >HS-DSCH Initial Window Size | M | | 9.2.1.30Nb | | – | |
| >Maximum MAC-d PDU Size Extended | O | | MAC PDU Size Extended 9.2.1.34D | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofPrioQueuess* | Maximum number of Priority Queues |

### 9.2.1.30Nb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs (or octets in case *HS-DSCH MAC-d PDU Size Format* = "Flexible MAC-d PDU Size") that may be transmitted before new credits are received from the DRNC.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| HS-DSCH Initial Window Size | | | INTEGER (1..255) | Number of MAC-d PDUs<br>If *HS-DSCH MAC-d PDU Size Format* = "Flexible MAC-d PDU Size" the credit shall be determined in octets:<br>credit (in octets) = *Maximum MAC-d PDU Size extended * HS-DSCH Initial Window Size* |

### 9.2.1.30O HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH MAC-d Flow ID | | | INTEGER (0..7) | |

### 9.2.1.30OA HS-DSCH MAC-d Flows Information

The *HS-DSCH MAC-d Flows Information* IE is used for the establishment of HS-DSCH MAC-d flows for a UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-DSCH MAC-d Flow Specific Information | | *1..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.30O | | – | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | – | |
| >Traffic Class | M | | 9.2.1.58A | | – | |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >TNL QoS | O | | 9.2.1.56A | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >TrCH Source Statistics Descriptor | O | | 9.2.1.65 | | YES | ignore |
| **Priority Queue Information** | | *1..<maxnoofPrioQueues>* | | | – | |
| >Priority Queue ID | M | | 9.2.1.45A | | – | |
| >Associated HS-DSCH MAC-d Flow | M | | HS-DSCH MAC-d Flow ID 9.2.1.30O | The HS-DSCH MAC-d Flow ID shall be one of the flow IDs defined in the HS-DSCH MAC-d Flow Specific Information of this IE. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID. | – | |
| >Scheduling Priority Indicator | M | | 9.2.1.51A | | – | |
| >T1 | M | | 9.2.1.54A | | – | |
| >Discard Timer | O | | 9.2.1.19C | | – | |
| >MAC-hs Window Size | M | | 9.2.1.34C | | – | |
| >MAC-hs Guaranteed Bit Rate | O | | 9.2.1.34Aa | | – | |
| **>MAC-d PDU Size Index** | | *1..<maxnoofMACdPDUindexes>* | | | – | |
| >>SID | M | | 9.2.1.52D | Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present. | – | |
| >>MAC-d PDU Size | M | | 9.2.1.34A | Shall be ignored if *Maximum MAC-d PDU* | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | *Size extended* IE is present. | | |
| >RLC Mode | M | | 9.2.1.48D | | – | |
| >Maximum MAC-d PDU Size extended | O | | MAC PDU Size Extended 9.2.1.34D | | YES | reject |
| >DL RLC PDU Size Format | O | | 9.2.1.136 | | YES | ignore |
| >UE Aggregate Maximum Bit Rate Enforcement Indicator | O | | NULL | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |
| *maxnoofPrioQueues* | Maximum number of Priority Queues |
| *maxnoofMACdPDUindexes* | Maximum number of different MAC-d PDU SIDs |

## 9.2.1.30OB HS-DSCH MAC-d Flows To Delete

The *HS-DSCH MAC-d Flows To Delete* IE is used for the removal of HS-DSCH MAC-d flows from a UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH MAC-d Flows To Delete | | *1..<maxnoofMACdFlows>* | | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.30O | |

| Range Bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |

## 9.2.1.30OC HS-DSCH MAC-d PDU Size Format

The *HS-DSCH MAC-d PDU Size Format* IE provides information about the type of MAC-d PDU Size Format used for HS-DSCH. “Indexed MAC-d PDU Size” uses MAC-d PDU sizes based on *SID* IE and *MAC-d PDU Size* IE of *MAC-d PDU Size Index* IE. “Flexible MAC-d PDU Size” uses a flexible MAC-d PDU size with a maximum PDU size as defined by *Maximum MAC-d PDU Size extended* IE of *Priority Queue Information* IE. The actual MAC-d PDU size is determined as specified in [32] and [41].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH MAC-d PDU Size Format | | | ENUMERATED (Indexed MAC-d PDU Size, Flexible MAC-d PDU Size) | |

## 9.2.1.30Oa HS-DSCH Physical Layer Category

The *HS-DSCH Physical Layer Category* IE defines a set of UE radio access capabilities related to HSDPA, as defined in [42].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH Physical Layer Category | | | INTEGER (1..64,…) | |

### 9.2.1.30P HS-DSCH-RNTI

The HS-DSCH-RNTI is needed for the UE-specific CRC in HS-SCCH and HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH-RNTI | | | INTEGER (0..65535) | |

### 9.2.1.30Q HS-DSCH Information To Modify

The *HS-DSCH Information To Modify* IE is used for modification of HS-DSCH information in a UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-DSCH MAC-d Flow Specific Information** | | *0..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.30O | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| >Traffic Class | O | | 9.2.1.58A | | – | |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >TNL QoS | O | | 9.2.1.56A | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| **Priority Queue Information** | | *0..<maxnoofPrioQueues>* | | | – | |
| >CHOICE *Priority Queue* | M | | | | – | |
| >>*Add Priority Queue* | | | | | – | |
| >>>Priority Queue ID | M | | 9.2.1.45A | | – | |
| >>>Associated HS-DSCH MAC-d Flow | M | | HS-DSCH MAC-d Flow ID 9.2.1.30O | Shall only refer to a HS-DSCH MAC-d flow already existing in the old configuration. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID. | – | |
| >>>Scheduling Priority Indicator | M | | 9.2.1.51A | | – | |
| >>>T1 | M | | 9.2.1.54A | | – | |
| >>>Discard Timer | O | | 9.2.1.19C | | – | |
| >>>MAC-hs Window Size | M | | 9.2.1.34C | | – | |
| >>>MAC-hs Guaranteed Bit Rate | O | | 9.2.1.34Aa | | – | |
| **>>>MAC-d PDU Size Index** | | *1..<maxnoofMACdPDUindexes>* | | | – | |
| >>>>SID | M | | 9.2.1.52D | Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present. | – | |
| >>>>MAC-d PDU Size | M | | 9.2.1.34A | Shall be ignored if | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | | *Maximum MAC-d PDU Size extended* IE is present. | | |
| >>>RLC Mode | M | | 9.2.1.48D | | – | |
| >>>Maximum MAC-d PDU Size extended | O | | MAC PDU Size Extended 9.2.1.34D | | YES | reject |
| >>>DL RLC PDU Size Format | O | | 9.2.1.136 | | Yes | ignore |
| *>>Modify Priority Queue* | | | | | – | |
| >>>Priority Queue ID | M | | 9.2.1.45A | Shall only refer to a Priority Queue already existing in the old configuration. | – | |
| >>>Scheduling Priority Indicator | O | | 9.2.1.51A | | – | |
| >>>T1 | O | | 9.2.1.54A | | – | |
| >>>Discard Timer | O | | 9.2.1.19C | | – | |
| >>>MAC-hs Window Size | O | | 9.2.1.34C | | – | |
| >>>MAC-hs Guaranteed Bit Rate | O | | 9.2.1.34Aa | | – | |
| **>>>MAC-d PDU Size Index** | | *0..<maxnoofMACdPDUindexes>* | | | – | |
| >>>>SID | M | | 9.2.1.52D | Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present. | – | |
| >>>>MAC-d PDU Size | M | | 9.2.1.34A | Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present. | – | |
| >>>Maximum MAC-d PDU Size extended | O | | MAC PDU Size Extended 9.2.1.34D | | YES | reject |
| >>>DL RLC PDU Size Format | O | | 9.2.1.136 | | Yes | ignore |
| *>>Delete Priority Queue* | | | | | – | |
| >>>Priority Queue ID | M | | 9.2.1.45A | Shall only refer to a Priority Queue already existing in the old configuration. | – | |
| MAC-hs Reordering Buffer Size for RLC-UM | O | | 9.2.1.34Ab | | – | |
| CQI Feedback Cycle k | O | | 9.2.2.24a | For FDD only | – | |
| CQI Repetition Factor | O | | 9.2.2.24c | For FDD only | – | |
| ACK-NACK Repetition Factor | O | | 9.2.2.a | For FDD only | – | |
| CQI Power Offset | O | | 9.2.2.24b | For FDD only | – | |
| ACK Power Offset | O | | 9.2.2.b | For FDD only | – | |
| NACK Power Offset | O | | 9.2.2.26a | For FDD only | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-SCCH Power Offset | O | | 9.2.2.19d | For FDD only | – | |
| HS-SCCH Code Change Grant | O | | 9.2.1.30S | | – | |
| TDD ACK NACK Power Offset | O | | 9.2.3.7I | For TDD only | – | |
| HARQ Preamble Mode | O | | 9.2.2.57 | For FDD only | YES | ignore |
| HS-PDSCH Code Change Grant | O | | 9.2.1.30W | For FDD only | YES | ignore |
| MIMO Mode Indicator | O | | 9.2.1.135 | For FDD and 1.28Mcps TDD only | YES | reject |
| HS-DSCH MAC-d PDU Size Format | O | | 9.2.1.30OC | | YES | reject |
| Sixtyfour QAM Usage Allowed Indicator | O | | 9.2.2.79A | For FDD only | YES | ignore |
| **UE Capabilities Information** | O | | | | YES | ignore |
| >HS-DSCH Physical Layer Category | M | | 9.2.1.30Oa | | – | |
| >1.28 Mcps TDD uplink physical channel capability | O | | 9.2.3.10D | Applicable to 1.28Mcps TDD only | YES | ignore |
| >Number of Supported Carriers | O | | ENUMERATED ( One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Tree-six carrier, Six-six carrier, ...) | Applicable to 1.28Mcps TDD only This IE indicates the number of carrier that UE can support at the same time,where " One-three carrier" means the number of supported carrier is one for the uplink,and three for the downlink. | YES | reject |
| >Multi-carrier HS-DSCH Physical Layer Category | O | | 9.2.1.30Oa | Applicable to 1.28Mcps TDD only | YES | ignore |
| >MIMO SF Mode Supported For HS-PDSCH dual stream | O | | ENUMERATED (SF1, SF1/SF16) | Applicable to 1.28Mcps TDD only | YES | ignore |
| >UE TS0 Capability LCR | O | | ENUMERATED (TS0 Capable, TS0 Non-Capable) | Applicable to 1.28Mcps TDD only | YES | ignore |
| Enhanced HS Serving CC Abort | O | | ENUMERATED (Abort Enhanced HS Serving CC, …) | For FDD only | YES | reject |
| UE Support Indicator Extension | O | | 9.2.2.103 | | YES | ignore |
| Power Offset For S-CPICH for MIMO Request Indicator | O | | 9.2.2.105 | For FDD only | YES | ignore |
| Single Stream MIMO Mode Indicator | O | | 9.2.2.107 | For FDD only | YES | reject |

| Range bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of MAC-d flows. |
| *maxnoofPrioQueues* | Maximum number of Priority Queues. |
| *maxnoofMACdPDUindexes* | Maximum number of MAC-d PDU Size Indexes (SIDs). |

## 9.2.1.30R HS-SCCH Code Change Indicator

The HS-SCCH Code Change Indicator indicates whether the HS-SCCH Code change is needed or not.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| HS-SCCH Code Change Indicator | | | ENUMERATED (HS-SCCH Code Change needed) | |

## 9.2.1.30S HS-SCCH Code Change Grant

The *HS-SCCH Code Change Grant* IE indicates that modification of HS-SCCH Codes is granted.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-SCCH Code Change Grant | | | ENUMERATED(Change Granted) | |

## 9.2.1.30T IMEI

The IMEI is a permanent UE Equipment Identity, see ref. [1].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IMEI | | | OCTET STRING (SIZE (8)) | - hexadecimal digits 0 to F, two hexadecimal digits per octet,<br>- each hexadecimal digit encoded 0000 to 1111,<br>- 1111 used as filler for bits 8 to 5 of last octet<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br><br>Number of hexadecimal digits shall be 15. |

## 9.2.1.30U IMEISV

The IMEISV is a permanent UE Equipment Identity, see ref. [1].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IMEISV | | | OCTET STRING (SIZE (8)) | - hexadecimal digits 0 to F, two hexadecimal digits per octet,<br>- each hexadecimal digit encoded 0000 to 1111,<br>- 1111 used as filler for bits 8 to 5 of last octet<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br><br>Number of hexadecimal digits shall be 16. |

### 9.2.1.30V HS-PDSCH Code Change Indicator [FDD]

The HS-PDSCH Code Change Indicator indicates whether the HS-PDSCH Code change is needed or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-PDSCH Code Change Indicator | | | ENUMERATED (HS-PDSCH Code Change needed) | |

### 9.2.1.30W HS-PDSCH Code Change Grant [FDD]

The *HS-PDSCH Code Change Grant* IE indicates that modification of HS-PDSCH Codes is granted.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-PDSCH Code Change Grant | | | ENUMERATED(Change Granted) | |

### 9.2.1.31 IMSI

The IMSI is the permanent UE user Identity, see ref. [1].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IMSI | | | OCTET STRING (SIZE(3..8)) | -Decimal digits coded in BCD<br>-“1111” used as filler<br>-bit 4 to 1 of octet n is encoding digit 2n-1<br>-bit 8 to 5 of octet n is encoding digit 2n |

### 9.2.1.31A Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per RNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Information Exchange ID | M | | INTEGER(0 .. 2^20-1) | |

### 9.2.1.31B Information Exchange Object Type

Void.

### 9.2.1.31C Information Report Characteristics

The information report characteristics define how the reporting shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Information Report Characteristics Type* | M | | | |
| *>On Demand* | | | NULL | |
| *>Periodic* | | | | |
| >>CHOICE *Information Report Periodicity Scale* | M | | | The frequency with which the Node B shall send information reports. |
| *>>>minute* | | | | |
| >>>>Report Periodicity Value | M | | INTEGER (1..60,…) | |
| *>>>hour* | | | | |
| >>>>Report Periodicity Value | M | | INTEGER (1..24,…) | |
| *>On Modification* | | | | |
| >>Information Threshold | O | | 9.2.1.31D | |

### 9.2.1.31D Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Information Type Item* | M | | | | – | |
| *>DGPS Corrections* | | | | | | |
| >>PRC Deviation | M | | ENUMERATED( 1, 2, 5, 10, …) | PRC deviation in meters from the previously reported value, which shall trigger a report | – | |
| *>DGANSS* | | | | | | |
| >>PRC Deviation | M | | ENUMERATED (1, 2, 5, 10, …) | PRC deviation in meters from the previously reported value, which shall trigger a report | – | |

### 9.2.1.31E Information Type

The Information Type indicates which kind of information the RNS shall provide.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Information Type Item | M | | ENUMERATED (UTRAN Access Point Position with Altitude, UTRAN Access Point Position, IPDL Parameters, GPS Information, DGPS Corrections, GPS RX Pos, SFN-SFN Measurement Reference Point Position,…, Cell Capacity Class, NACC Related Data, MBMS Bearer Service Full Address, Inter-frequency Cell Information, GANSS Information, DGANSS Corrections, GANSS RX Pos, MBMS Counting Information, MBMS Transmission Mode, MBMS Neighbouring Cell Information, MBMS RLC Sequence Number) | For information exchange on the Iur-g interface, only the Cell Capacity Class is used.<br><br>MBMS Counting Information, MBMS Transmission Mode, MBMS Neighbouring Cell Information and MBMS RLC Sequence Numbe shall only be used by FDD. | – | |
| **GPS Information** | C-GPS | *1..<maxnoofGPSTypes>* | | | – | |
| >GPS Information Item | | | ENUMERATED (GPS Navigation Model and Time Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real-Time Integrity, …) | | – | |
| **GANSS Information** | C-*GANSS* | | | | YES | Ignore |
| **>GANSS Common Data** | | *0..1* | | | – | |
| >>Ionospheric Model | O | | BOOLEAN | True means requested | – | |
| >>Additional Ionospheric Model | O | | Additional Ionospheric Model Request 9.2.1.122d | Presence means requested. | YES | Ignore |
| >>Earth Orientation Parameters | O | | Earth Orientation Parameters Request 9.2.1.122e | | YES | Ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| **>GANSS Generic Data** | | *0..<maxnoofGANSS>* | | | – | |
| >>GANSS ID | O | | 9.2.1.119 | | – | |
| >>GANSS Navigation Model And Time Recovery | O | | BOOLEAN | True means requested | – | |
| >>GANSS Time Model GNSS-GNSS | O | | BIT STRING(9) | Defines the time model required.<br><br>Bit 1 is the MSB and bit 9 is the LSB (see section 9.2.0).<br><br>Bit 1:GPS,<br>Bit 2:Galileo,<br>Bit 3:QZSS,<br>Bit 4:GLONASS.<br><br>Other bits are reserved. | – | |
| >>GANSS UTC Model | O | | BOOLEAN | True means requested | – | |
| >>GANSS Almanac | O | | BOOLEAN | True means requested | – | |
| >>GANSS Real Time Integrity | O | | BOOLEAN | True means requested | – | |
| **>>GANSS Data Bit Assistance** | | *0..1* | | | – | |
| >>>GANSS TOD | M | | INTEGER (0..86399) | The GANSS Time Of Day for which the data bits are requested | – | |
| **>>>Data Bit Assistance** | | *1* | | | – | |
| >>>>DGANSS Signal ID | M | | BIT STRING(8) | Defined in [16] | – | |
| >>>>GANSS Data Bit Interval | M | | INTEGER (0..15) | Defined in [16] | – | |
| **>>>>Satellite Information** | | *0..<maxGANSSSat>* | | | – | |
| >>>>Sat ID | M | | INTEGER(0..63) | Identifies the satellite and is equal to (SV ID No – 1) | – | |
| >>GANSS Additional Navigation Models And Time Recovery | O | | GANSS Additional Navigation Models And Time Recovery Request 9.2.1.122f | | YES | Ignore |
| >>GANSS Additional UTC Models | O | | GANSS Additional UTC Models Request 9.2.1.122g | | YES | Ignore |
| >>GANSS Auxiliary Information | O | | GANSS Auxiliary Information Request 9.2.1.122h | | YES | Ignore |
| >>SBAS ID | C-*GANSS-ID* | | 9.2.1.122b | | YES | Ignore |
| **DGANSS Corrections Req** | C-*DGANSS Corrections* | *1* | | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| >DGANSS Signal ID | M | | BIT STRING(8) | Defined in [16] | – | |
| >GANSS ID | O | | 9.2.1.119 | | YES | Ignore |
| **MBMS RLC Sequence Number Information** | C-MBMSRLCSequenceNumber | | | FDD only | YES | Ignore |
| >**MBMS Cell List** | | 1..<maxnoofcell> | | | – | |
| >>C-ID | M | | 9.2.1.6 | | – | |
| >>**MBMS Bearer Service List** | | 1..<maxnoofMBMS> | | | – | |
| >>>TMGI | M | | 9.2.1.80 | | – | |
| >>>Time Stamp | M | | 9.2.2.98 | | – | |

| Condition | Explanation |
|---|---|
| *DGANSSCorrections* | The IE shall be present if the *Information Type Item* IE indicates "DGANSS Corrections". |
| *GPS* | This IE shall be present if the *Information Type Item* IE indicates "GPS Information". |
| *GANSS* | This IE shall be present if the *Information Type Item* IE indicates "GANSS Information". |
| *GANSS-ID* | This IE shall be present if the *GANSS ID* IE indicates "SBAS". |
| *MBMSRLCSequenceNumber* | This IE shall be present if the *Information Type Item* IE indicates " MBMS RLC Sequence Number ". |

| Range Bound | Explanation |
|---|---|
| *maxGANSSSat* | Maximum number of satellites for which data is included in the IE |
| *maxnoofGPSTypes* | Maximum number of GPS Information Types supported in one Information Exchange. |
| *maxnoofGANSS* | Maximum number of GANSS Systems. |
| *maxnoofMBMS* | Maximum number of MBMS bearer services that a UE can join. |
| *Maxnoofcell* | Maximum number of cells that can be indicated in the corresponding IE. |

## 9.2.1.31F IPDL Parameters

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *IPDL Parameters* | | | | | - | |
| >*IPDL FDD Parameters* | | | | | | |
| >>IPDL FDD parameters | M | | 9.2.2.21B | | – | |
| >*IPDL TDD Parameters* | | | | Applicable to 3.84Mcps TDD and 7.68Mcps TDD only | | |
| >>IPDL TDD parameters | M | | 9.2.3.4B | | – | |
| >*Additional IPDL Parameters* | | | | | | |
| >>*IPDL TDD Parameters LCR* | | | | Applicable to 1.28Mcps TDD only | – | |
| >>>IPDL TDD parameters LCR | M | | 9.2.3.4Bb | | YES | reject |

### 9.2.1.31G Inter-frequency Cell Information

This IE contains the inter-frequency cell information of a cell in the DRNS broadcased in SIB11 or SIB12.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **SIB11** | | *0..2* | | |
| >Inter-frequency Cell Indication- SIB11 | M | | Integer(0..1) | Value tag in 10.3.7.45 in [16] with the same IE name. |
| >Inter-frequency Cell List in SIB11 | | *0..<maxCellSIB11 OrSIB12>* | | |
| >>Inter-frequency Cell Id | M | | Integer(0..31) | The order of the inter-frequency cell in SIB11. |
| >>DL UARFCN | M | | UARFCN 9.2.1.66 | |
| >>UL UARFCN | O | | UARFCN 9.2.1.66 | If this IE is not present, the default duplex distance defined for the operating frequency band shall be used [43] |
| >>Primary Scrambling Code | M | | 9.2.1.45 | |
| **SIB12** | | *0..2* | | |
| >Inter-frequency Cell Indication- SIB12 | M | | | Value tag in 10.3.7.45 in [16] with the same IE name. |
| >Inter-frequency Cell List in SIB12 | | *0..<maxCellSIB11 OrSIB12>* | | |
| >>Inter-frequency Cell Id | | | Integer(0..31) | The order of the inter-frequency cell in SIB12. |
| >>DL UARFCN | M | | UARFCN 9.2.1.66 | |
| >>UL UARFCN | O | | UARFCN 9.2.1.66 | If this IE is not present, the default duplex distance defined for the operating frequency band shall be used [43] |
| >>Primary Scrambling Code | M | | 9.2.1.45 | |

| Range bound | Explanation |
|---|---|
| *maxCellSIB11OrSIB12* | Maximum number of inter-frequency cells broadcased in SIB11 or SIB12. |

### 9.2.1.32 L3 Information

This parameter contains the Layer 3 Information from a Uu message as received from the UE over the Uu interface or the Layer 3 Information for a Uu message to be sent to a UE by the DRNC, as defined in ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| L3 Information | | | BIT STRING | The content is defined in ref. [16] |

### 9.2.1.33 Limited Power Increase

Void.

### 9.2.1.33A Load Value

The *Load Value* IE contains the total load on the measured object relative to the maximum planned load for both the uplink and downlink. It is defined as the load percentage of the Cell Capacity Class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink Load Value | M | | INTEGER(0. .100) | Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale. |
| Downlink Load Value | M | | INTEGER(0. .100) | Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale. |

### 9.2.1.34 MAC-c/sh SDU Length

Indicates the MAC-c/sh SDU Length. Which is used for FACH, [TDD – DSCH and USCH]. There may be multiple MAC-c/sh SDU Lengths per priority class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-c/sh SDU Length | | | INTEGER(1. .5000) | Size of the MAC-c/sh SDU in number of bits. |

### 9.2.1.34A MAC-d PDU Size

The *MAC-d PDU Size* IE provides the size in bits of the MAC-d PDU.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-d PDU Size | | | INTEGER (1..5000,…) | In case of E-DCH, value 8 and values not multiple of 8 shall not be used. |

### 9.2.1.34Aa MAC-hs Guaranteed Bit Rate

The *MAC-hs Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second that Node B should deliver over the air interface under normal operating conditions (provided there is data to deliver). If the *MAC-hs Guaranteed Bit Rate* IE is received with the value set to 0 during RL set up or modification, no guarantee is applied.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| MAC-hs Guaranteed Bit Rate | | | INTEGER (0..2^24-1, …, 2^24..256,000, 000) | Unit: bit/s |

### 9.2.1.34Ab MAC-hs Reordering Buffer Size for RLC-UM

The *MAC-hs Reordering Buffer Size for RLC-UM* IE indicates the portion of the buffer in the UE that can be used for RLC-UM traffic (i.e. for Priority Queues whose *RLC Mode* IE is set to "RLC-UM").

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-hs Reordering Buffer Size for RLC-UM | | | INTEGER (0..300,…) | Unit: kBytes<br>And N kBytes = N*1024 Bytes.<br>The D R N S shall use this value to avoid the overflow of the UE buffer. |

### 9.2.1.34B MAC-hs Reset Indicator

The *MAC-hs Reset Indicator* IE indicates that a reset of the MAC-hs is not required.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-hs Reset Indicator | | | ENUMERATED (MAC-hs Not Reset) | |

### 9.2.1.34C MAC-hs Window Size

The *MAC-hs Window Size* IE is used for MAC-hs/MAC-ehs PDU retransmission as defined in [41]. [FDD – the values 64 and 128 is only allowed when the MAC header type is MAC-ehs and under conditions defined in [32]].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| MAC-hs Window Size | | | ENUMERATED (4, 6, 8, 12, 16, 24, 32,…) | |

### 9.2.1.34D MAC PDU Size Extended

The *MAC PDU Size Extended* IE provides the size in octets of the MAC level PDU when an extended MAC level PDU size is required.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC PDU Size Extended | | | INTEGER (1..1504,…,1505) | In case of E-DCH, value 1 shall not be used |

### 9.2.1.35 Maximum Allowed UL Tx Power

Maximum Allowed UL Tx Power is the maximum power that a UE in a particular cell is allowed to transmit.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Allowed UL Tx Power | | | INTEGER(-50..+33) | dBm |

### 9.2.1.35A Measurement Availability Indicator

Void

### 9.2.1.35B Measurement Change Time

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Change Time | M | | INTEGER (1..6000,…) | Unit: ms<br>Range: 10..60000 ms<br>Step: 10 ms |

### 9.2.1.36 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Filter Coefficient | | | ENUMERATED(0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19,…) | |

### 9.2.1.36A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Hysteresis Time | | | INTEGER (1..6000,…) | Unit: ms<br>Range: 10..60000 ms<br>Step: 10 ms |

### 9.2.1.37 Measurement ID

The Measurement ID uniquely identifies a dedicated measurement within a UE Context or a common measurement within a Distant RNC Context [TDD – or a UE measurement within a UE Context].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement ID | | | INTEGER(0 .. 2^20-1) | |

### 9.2.1.38 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Measurement Increase/Decrease Threshold* | M | | | | – | |
| *>SIR* | | | | | | |
| >>SIR | M | | INTEGER(0..62) | 0: 0 dB<br>1: 0.5 dB<br>2: 1 dB<br>…<br>62: 31dB | – | |
| *>SIR Error* | | | | FDD Only | | |
| >>SIR Error | M | | INTEGER(0..124) | 0: 0 dB<br>1: 0.5 dB<br>2: 1 dB<br>…<br>124: 62 dB | – | |
| *>Transmitted Code Power* | | | | | | |
| >>Transmitted Code Power | M | | INTEGER(0..112,...) | 0: 0 dB<br>1: 0.5 dB<br>2: 1 dB<br>…<br>112: 56 dB | – | |
| *>RSCP* | | | | TDD Only | | |
| >>RSCP | M | | INTEGER(0..126) | 0: 0 dB<br>1: 0.5 dB<br>2: 1 dB<br>…<br>126: 63 dB | – | |
| *>Round Trip Time* | | | | FDD Only | | |
| >>Round Trip Time | M | | INTEGER(0..32766) | 0: 0 chips<br>1: 0.0625 chips<br>2: 0.1250 chips<br>…<br>32766: 2047.875 chips | – | |
| *>Additional Measurement Thresholds* | | | | | | |
| *>>Load* | | | | | | |
| >>>Load | M | | INTEGER(0..100) | Units are the same as for the Uplink *Load Value* IE and *Downlink Load Value* IE. | – | |
| *>>Transmitted Carrier Power* | | | | | | |
| >>>Transmitted Carrier Power | M | | INTEGER(0..100) | According to mapping in [23] and [24]. | YES | reject |
| *>>Received Total Wide Band Power* | | | | | | |
| >>>Received Total Wide Band Power | M | | INTEGER(0..620) | 0: 0dB<br>1: 0.1dB<br>2: 0.2dB<br>...<br>620: 62dB | YES | reject |
| *>>UL Timeslot ISCP* | | | | TDD Only | | |
| >>>UL Timeslot ISCP | M | | INTEGER(0..126) | 0: 0dB<br>1: 0.5dB<br>2: 1dB<br>...<br>126: 63dB | YES | reject |
| *>>RT Load* | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>RT Load | M | | INTEGER(0..100) | Units are the same as for the *Uplink RT Load Value* IE and *Downlink RT Load Value* IE. | YES | reject |
| *>>NRT Load Information* | | | | | | |
| >>>NRT Load Information | M | | INTEGER(0..3) | | YES | reject |
| *>>UpPTS interference* | | | | 1.28Mcps TDD Only | | |
| >>>UpPTS interference Value | M | | INTEGER (0..127,…) | According to mapping in [24] | YES | reject |

### 9.2.1.38A Measurement Recovery Behavior

This IE controls the Measurement Recovery Behavior.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Recovery Behavior | | | NULL | |

### 9.2.1.38B Measurement Recovery Reporting Indicator

This IE indicates the Measurement Recovery Reporting.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Recovery Reporting Indicator | | | NULL | |

### 9.2.1.38C Measurement Recovery Support Indicator

This IE indicates the Measurement Recovery Support.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Recovery Support Indicator | | | NULL | |

### 9.2.1.39 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E, F or On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Measurement Threshold* | | | | | - | |
| *>SIR* | | | | | | |
| >>SIR | M | | INTEGER(0..63) | According to mapping in ref. [23] and [24]. | – | |
| *>SIR Error* | | | | FDD Only | | |
| >>SIR Error | M | | INTEGER(0..125) | According to mapping in [23] | – | |
| *>Transmitted Carrier Power* | | | | | | |
| >>Transmitted Code Power | M | | INTEGER(0..127) | According to mapping in ref. [23] and [24]. | – | |
| *>RSCP* | | | | TDD Only | | |
| >>RSCP | M | | INTEGER(0..127) | According to mapping in ref. [24] | – | |
| *>Rx Timing Deviation* | | | | Applicable to 3.84Mcps TDD Only | | |
| >>Rx Timing Deviation | M | | INTEGER(0..8191) | According to mapping in [24] | – | |
| *>Round Trip Time* | | | | FDD Only | | |
| >>Round Trip Time | M | | INTEGER(0..32767) | According to mapping in [23] | – | |
| *>Additional Measurement Thresholds* | | | | | | |
| *>>$T_{UTRAN-GPS}$ Measurement Threshold Information* | | | | | | |
| >>>$T_{UTRAN-GPS}$ Measurement Threshold Information | M | | 9.2.1.59C | | YES | reject |
| *>>SFN-SFN Measurement Threshold Information* | | | | | | |
| >>>SFN-SFN Measurement Threshold Information | M | | 9.2.1.52B | | YES | reject |
| *>>Load* | | | | | | |
| >>>Load | M | | INTEGER(0..100) | 0 is the minimum indicated load, and 100 is the maximum indicated load. | YES | reject |
| *>>Transmitted Carrier Power* | | | | | | |
| >>>Transmitted Carrier Power | M | | INTEGER(0..100) | According to mapping in [23] and [24]. | YES | reject |
| *>>Received Total Wide Band Power* | | | | | | |
| >>>Received Total Wide Band Power | M | | INTEGER(0..621) | According to mapping in [23] and [24]. | YES | reject |
| *>>UL Timeslot ISCP* | | | | TDD Only | | |
| >>>UL Timeslot ISCP | M | | INTEGER(0..127) | According to mapping in [24] | YES | reject |
| *>>RT Load* | | | | | | |
| >>>RT Load | M | | INTEGER(0..100) | | YES | reject |
| *>>NRT Load* | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Information* | | | | | | |
| >>>NRT Load Information | M | | INTEGER(0..3) | | YES | reject |
| *>>Rx Timing Deviation LCR* | | | | Applicable to 1.28Mcps TDD Only | | |
| >>>Rx Timing Deviation LCR | M | | INTEGER(0..511) | According to mapping in [24] | YES | reject |
| *>>HS-SICH reception quality* | | | | Applicable to TDD Only | | |
| >>>HS-SICH reception quality | M | | INTEGER (0..20) | According to mapping in [24] | YES | reject |
| *>>UpPTS interference* | | | | 1.28Mcps TDD Only | | |
| >>>UpPTS interference Value | M | | INTEGER (0..127,…) | According to mapping in [24] | YES | reject |
| *>>Rx Timing Deviation 768* | | | | Applicable to 7.68Mcps TDD Only | | |
| >>>Rx Timing Deviation 768 | M | | INTEGER(0..65535) | According to mapping in [24] | YES | reject |
| *>>Rx Timing Deviation 384 Extended* | | | | Applicable to 3.84Mcps TDD Only | | |
| >>>Rx Timing Deviation 384 Extended | M | | INTEGER(0..32767) | According to mapping in [24] | YES | reject |
| *>>Extended Round Trip Time* | | | | FDD Only | | |
| >>>Extended Round Trip Time Value | M | | INTEGER (32767..103041) | Continuation of intervals with step size as defined in [23]. | YES | reject |
| *>>$T_{UTRAN-GANSS}$ Measurement Threshold Information* | | | | | | |
| >>>$T_{UTRAN-GANSS}$ Measurement Threshold Information | M | | 9.2.1.113 | | YES | reject |

## 9.2.1.39A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Message structure** | | *1..<maxnoo flevels>* | | The first repetition of the *Message Structure* IE corresponds to the top level of the message. The last repetition of the *Message Structure* IE corresponds to the level above the reported level for the occurred error of the message. | – | |
| >IE ID | M | | INTEGER( 0..65535) | The IE ID of this level's IE containing the not understood or missing IE. | – | |
| >Repetition Number | O | | INTEGER( 1..256) | The *Repetition Number* IE gives, if applicable, the number of occurrences of this level's reported IE up to and including the occurrence containing the not understood or missing IE.<br>Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them. | – | |

| Range bound | Explanation |
|---|---|
| maxnooflevels | Maximum no. of message levels to report. The value for maxnooflevels is 256. |

### 9.2.1.40 Message Type

The Message Type uniquely identifies the message being sent.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Procedure ID** | | 1 | | |
| >Procedure Code | M | | INTEGER (0..255) | "0" = Common Transport Channel Resources Initialisation<br>"1" = Common Transport Channel Resources Release<br>"2" = Compressed Mode Command<br>"3" = Downlink Power Control<br>"4" = Downlink Power Timeslot Control<br>"5" = Downlink Signalling Transfer<br>"6" = Error Indication<br>"7" = Dedicated Measurement Failure<br>"8" = Dedicated Measurement Initiation<br>"9" = Dedicated Measurement Reporting<br><br>"10" = Dedicated Measurement Termination<br>"11" = Paging<br>"12" = Physical Channel Reconfiguration<br>"14" = Radio Link Addition<br>"15" = Radio Link Deletion<br>"16" = Radio Link Failure<br>"17" = Radio Link Preemption<br>"18" = Radio Link Restoration<br>"19" = Radio Link Setup<br>"20" = Relocation Commit<br>"21" = Synchronised Radio Link Reconfiguration Cancellation<br>"22" = Synchronised Radio Link Reconfiguration Commit<br>"23" = Synchronised Radio Link Reconfiguration Preparation<br>"24" = UnSynchronised Radio Link Reconfiguration<br>"25" = Uplink Signalling Transfer<br>"26" = Common Measurement Failure<br>"27" = Common Measurement Initiation<br><br>"28" = Common Measurement Reporting<br>"29" = Common Measurement Termination<br>"30" = Information Exchange Failure<br>"31" = Information Exchange Initiation<br>"32" = Information Reporting<br>"33" = Information Exchange Termination<br>"34" = Radio Link Congestion<br>"35" = Reset<br>"36" = Radio Link Activation<br>"37" = GERAN Uplink Signalling Transfer<br>"38" = Radio Link Parameter Update<br>"39" = UE Measurement Failure<br>"40" = UE Measurement Initiation<br>"41" = UE Measurement Reporting<br>"42" = UE Measurement Termination<br>"43" = Iur Deactivate Trace<br>"44" = Iur Invoke Trace<br>"45" = MBMS Attach<br>"46" = MBMS Detach<br>"48" = Direct Information Transfer<br>"49" = Enhanced Relocation<br>"50" = Enhanced Relocation Cancel<br>"51" = Enhanced Relocation Signalling Transfer<br>"52" = Enhanced Relocation Release<br>"53" = MBSFN MCCH Information<br>"54" = Secondary UL Frequency |

| | | | | |
|---|---|---|---|---|
| | | | | Reporting<br>"55" = Secondary UL Frequency Update |
| >Ddmode | M | | ENUMERATED(FDD, TDD, Common, …) | Common = common to FDD and TDD. |
| Type of Message | M | | ENUMERATED(Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome) | |

### 9.2.1.41 Multiple URAs Indicator

The Multiple URAs Indicator indicates whether the accessed cell has multiple URAs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Multiple URAs Indicator | | | ENUMERATED(Multiple URA s exist, Single URA Exists) | |

### 9.2.1.41a NACC Related Data

The *NACC related data* IE provides NACC related information for the indicated GSM cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *GERAN System Info Type* | M | | | |
| *>SI* | | | | |
| >>SI | M | | 9.2.1.30Fc | GERAN system information SI3, SI13, SI1 [47] |
| *>PSI* | | | | |
| >>PSI | M | | 9.2.1.30Fc | GERAN system information PSI1, PSI2, PSI4 [47] |

### 9.2.1.41A Neighbouring UMTS Cell Information

The *Neighbouring UMTS Cell Information* IE provides information for UMTS Cells that are neighbouring cells to a cell in the DRNC. The neighbouring cell information is provided for each RNC (including the DRNC) that has cells that are neighbouring cells to the cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Neighbouring UMTS Cell Information** | | *1..<maxnoof neighbouringRNCs>* | | | EACH | ignore |
| >RNC-ID | M | | 9.2.1.50 | If the *Extended RNC-ID* IE is included in the *Neighbouring UMTS Cell Information* IE, the *RNC-ID* IE shall be ignored. | – | |
| >CN PS Domain Identifier | O | | 9.2.1.12 | | – | |
| >CN CS Domain Identifier | O | | 9.2.1.11 | | – | |
| >Neighbouring FDD Cell Information | O | | 9.2.1.41B | | – | |
| >Neighbouring TDD Cell Information | O | | 9.2.1.41D | | – | |
| >Neighbouring TDD Cell Information LCR | O | | 9.2.1.72 | | YES | ignore |
| >Extended RNC-ID | O | | 9.2.1.50a | The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |

| Range bound | Explanation |
|---|---|
| *maxnoofneighbouringRNCs* | Maximum number of neighbouring RNCs. |

## 9.2.1.41B Neighbouring FDD Cell Information

The *Neighbouring FDD Cell Information* IE provides information for FDD cells that are neighbouring cells to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Neighbouring FDD Cell Information** | | *1..<maxnoofFDDneighbours>* | | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >UL UARFCN | M | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] | – | |
| >DL UARFCN | M | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] | – | |
| >Frame Offset | O | | 9.2.1.30 | | – | |
| >Primary Scrambling Code | M | | 9.2.1.45 | | – | |
| >Primary CPICH Power | O | | 9.2.1.44 | | – | |
| >Cell Individual Offset | O | | 9.2.1.7 | | – | |
| >Tx Diversity Indicator | M | | 9.2.2.50 | | | |
| >STTD Support Indicator | O | | 9.2.2.45 | | – | |
| >Closed Loop Mode1 Support Indicator | O | | 9.2.2.2 | | – | |
| >Not Used | O | | NULL | | – | |
| >Restriction State Indicator | O | | 9.2.1.48C | | YES | ignore |
| >DPC Mode Change Support Indicator | O | | 9.2.2.56 | | YES | ignore |
| >Coverage Indicator | O | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | O | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Cell Capability Container FDD | O | | 9.2.2.D | | YES | ignore |
| >SNA Information | O | | 9.2.1.52Ca | | YES | ignore |
| >Frequency Band Indicator | O | | 9.2.2.59 | | YES | ignore |
| >Max UE DTX Cycle | C-CPC-DTX-DRXCapable | | 9.2.2.87 | | YES | ignore |
| >Multiple PLMN List | O | | 9.2.1.117 | | YES | ignore |
| >Secondary Serving Cell List | C-MC-Capable | | 9.2.2.101 | | YES | ignore |
| >Dual Band Secondary Serving Cell List | C-DB-Capable | | Secondary Serving Cell List 9.2.2.101 | | YES | ignore |
| >Cell Capability Container Extension FDD | O | | 9.2.2.123 | | YES | ignore |
| >Cell List Validity Indicator | O | | ENUMERATED (Ignore Secondary Serving Cell List, Ignore Dual Band Secondary Serving Cell List, Ignore Both) | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofFDDneighbours* | Maximum number of neighbouring FDD cell for one cell. |

| Condition | Explanation |
|---|---|
| CPC-DTX-DRXCapable | The IE shall be present if the the fifteenth bit Continuous Packet Connectivity DTX-DRX Support Indicator in the *Cell Capability Container FDD* IE is set to the value "1". |
| MC-Capable | The IE shall be present if the the Multi Cell Support Indicator in the *Cell Capability Container FDD* IE is set to the value "1". |
| DB-Capable | The IE shall be present if the the Dual Band Support Indicator in the *Cell Capability Container FDD* IE is set to the value "1". |

### 9.2.1.41C Neighbouring GSM Cell Information

The *Neighbouring GSM Cell Information* IE provides information for all GSM Cells that are a neighbouring cell to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Neighbouring GSM Cell Information** | | *1..<maxnoofGSMneighbours>* | | | GLOBAL | ignore |
| **>CGI** | | *1* | | Cell Global Identity as defined in ref. [1]. | – | |
| **>>LAI** | | *1* | | | – | |
| >>>PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br>-The PLMN Identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). | – | |
| >>>LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed | – | |
| >>CI | M | | OCTET STRING (2) | | – | |
| >Cell Individual Offset | O | | 9.2.1.7 | The Cell Individual Offset to be used for Ues using DCHs. If the *Extended GSM Cell Individual Offset* IE is present, the *Cell Individual Offset* IE shall be set to<br>a) –10dB if the *Extended GSM Cell Individual Offset* IE is < -10dB<br>and<br>b) 10dB if the *Extended GSM Cell Individual Offset* IE is > 10dB. | – | |
| **>BSIC** | | *1* | | Base Station Identity Code as defined in ref. [1]. | – | |
| >>NCC | M | | BIT STRING(3) | Network Colour Code. | – | |
| >>BCC | M | | BIT STRING(3) | Base Station Colour Code. | – | |
| >Band Indicator | M | | ENUMERATED(DCS 1800 band, PCS 1900 band, …) | Indicates whether or not the BCCH ARFCN belongs to the 1800 band or 1900 band of GSM frequencies. | – | |
| >BCCH ARFCN | M | | INTEGER(0..1023) | BCCH Frequency as defined in ref. [29]. | – | |
| >Coverage Indicator | O | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | O | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| > SNA Information | O | | 9.2.1.52Ca | | YES | ignore |
| >GERAN Cell Capability | O | | 9.2.1.30Fa | | YES | ignore |
| >GERAN Classmark | O | | 9.2.1.30Fb | | YES | ignore |
| >Extended GSM Cell Individual Offset | O | | 9.2.1.26Bb | The Extended GSM Cell Individual Offset to be used for Ues using DCHs, for values that exceed the range of the *Cell Individual Offset* IE. | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofGSMneighbours* | Maximum number of neighbouring GSM cells for one cell. |

## 9.2.1.41D Neighbouring TDD Cell Information

The *Neighbouring TDD Cell Information* IE provides information for 3.84Mcps TDD or 7.68Mcps TDD cells that are neighbouring cells to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Neighbouring TDD Cell Information** | | *1..<maxnoofTDDneighbours>* | | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >UARFCN | M | | 9.2.1.66 | Corresponds to Nt in ref. [7] | – | |
| >Frame Offset | O | | 9.2.1.30 | | – | |
| >Cell Parameter ID | M | | 9.2.1.8 | | – | |
| >Sync Case | M | | 9.2.1.54 | | – | |
| >Time Slot For SCH | C-Case1 | | Time Slot 9.2.1.56 | | – | |
| >SCH Time Slot | C-Case2 | | 9.2.1.51 | | – | |
| >SCTD Indicator | M | | 9.2.1.78 | | – | |
| >Cell Individual Offset | O | | 9.2.1.7 | | – | |
| >DPCH Constant Value | O | | 9.2.1.23 | | – | |
| >PCCPCH Power | O | | 9.2.1.43 | | – | |
| >Restriction State Indicator | O | | 9.2.1.48C | | YES | ignore |
| >Coverage Indicator | O | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | O | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Cell Capability Container TDD | O | | 9.2.3.1a | | YES | ignore |
| >Cell Capability Container 7.68Mcps TDD | O | | 9.2.3.31 | | YES | ignore |
| > SNA Information | O | | 9.2.1.52Ca | | YES | ignore |
| >Multiple PLMN List | O | | 9.2.1.117 | | YES | ignore |

| Condition | Explanation |
|---|---|
| Case1 | The IE shall be present if the *Sync Case* IE is set to “Case1”. |
| Case2 | The IE shall be present if the *Sync Case* IE is set to “Case2”. |

| Range bound | Explanation |
|---|---|
| *maxnoofTDDneighbours* | Maximum number of neighbouring 3.84Mcps TDD or 7.68Mcps TDD cell for one cell. |

## 9.2.1.41Dd Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the 1.28Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot LCR* IE and *Midamble shift LCR* IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.1.8 | |
| Time Slot LCR | O | | 9.2.3.12a | |
| Midamble shift LCR | O | | 9.2.3.4C | |

## 9.2.1.41De Neighbouring E-UTRA Cell Information

The *Neighbouring E-UTRA Cell Information* IE provides information for all E-UTRA Cells that are a neighbouring cell to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Neighbouring E-UTRA Cell Information** | | *1..<maxnoofEUTRAneighbours>* | | | – | |
| **>ECGI** | | *1* | | EUTRAN Cell Global Identity as defined in ref. [61]. | – | |
| >>PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br>-The PLMN Identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). | – | |
| >>E-UTRAN Cell Identifier | M | | BIT STRING (28) | The leftmost bits of the *E-UTRAN Cell Identifier* IE value correspond to the value of the eNB ID. | – | |
| >CHOICE *EARFCN Information* | M | | | | – | |
| *>>FDD* | | | | | | |
| **>>>EARFCN-FDD** | | 1 | | | | |
| >>>UL EARFCN | M | | 9.2.1.41Df EARFCN | Corresponds to NuL in [62] | – | |
| >>>DL EARFCN | M | | 9.2.1.41Df EARFCN | Corresponds to NdL in [62] | – | |
| *>>TDD* | | | | | | |
| >>> EARFCN | M | | 9.2.1.41Df EARFCN | Corresponds to NdL in [62] | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofLTEneighbours* | Maximum number of neighbouring LTE cells for one cell. |

### 9.2.1.41Df EARFCN

The EARFCN (E-UTRA Absolute Radio Frequency Channel Number) defines the carrier.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| EARFCN | | | INTEGER (0..maxEARFCN) | Defined in [62]. |

### 9.2.1.41E Paging Cause

Cause for a CN originated page.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Paging Cause | | | ENUMERATED( Terminating Conversational Call, Terminating Streaming Call, Terminating Interactive Call, Terminating Background Call, Terminating Low Priority Signalling,…, Terminating High Priority Signalling, Terminating – cause unknown ) | See in [16] |

### 9.2.1.41F Paging Record Type

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Paging Record Type | | | ENUMERATED(IMSI (GSM-MAP), TMSI (GSM-MAP), P-TMSI (GSM-MAP), IMSI (DS-41), TMSI (DS-41),...) | See ref. [16] |

### 9.2.1.41Fa Partial Reporting Indicator

This IE indicates if DRNS may report partially successful measurements.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| Partial Reporting Indicator | | | ENUMERATED(partial reporting allowed) | |

### 9.2.1.41G Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of Measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nd [6] |
| Primary Scrambling Code | M | | 9.2.1.45 | |

### 9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.1.8 | |
| Time slot | O | | 9.2.1.56 | |
| Midamble Shift And Burst Type | O | | 9.2.3.4 | |

### 9.2.1.41I NRT Load Information Value

The *NRT Load Information* IE indicates the load situation on the cell for the Non Real-Time traffic. Non Real Time traffic corresponds to the Interactive and Background traffic classes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink NRT Load Information Value | M | | INTEGER(0..3) | Mapping of the status:<br>0: low: The Uplink NRT load is low.<br>1: medium: The Uplink NRT load is medium.<br>2: high: Uplink NRT load is high. Probability to admit a new user is low.<br>3: overloaded: Uplink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow. |
| Downlink NRT Load Information Value | M | | INTEGER(0..3) | Mapping of the status:<br>0: low: The Downlink NRT load is low.<br>1: medium: The Downlink NRT load is medium.<br>2: high: Downlink NRT load is high. Probability to admit a new user is low.<br>3: overloaded: Downlink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow. |

### 9.2.1.42 Payload CRC Present Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Payload CRC Presence Indicator | | | ENUMERATED(CRC Included, CRC not included) | |

### 9.2.1.43 PCCPCH Power

Primary CCPCH power is the power that shall be used for reference power value in a TDD cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the PCCPCH Power is the linear sum of the power that is used for transmitting the PCCPCH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PCCPCH Power | | | NTEGER (-150..400,...) | Unit dBm Range –15.0 to 40.0 dBm,<br>Step size 0.1 dB.<br>-15.0 shall indicate P≤ -15dBm<br>+40.0 shall indicate P≥ 40dBm. |

### 9.2.1.44 Primary CPICH Power

Primary CPICH power is the power that is used for transmitting the Primary CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH Power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CPICH Power | | | INTEGER (-100..500) | Value = Primary CPICH Power/10<br>Unit dBm<br>Range –10.0..+50.0<br>Step 0.1 dB |

### 9.2.1.45 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary Scrambling Code | | | INTEGER(0 .. 511) | |

### 9.2.1.45A Priority Queue ID

The *Priority Queue ID* IE provides the identity of the Priority Queue. The Priority Queue ID is unique across all MAC-d flows that are currently allocated for one UE Context or across all Common MAC flows within a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Priority Queue ID | | | INTEGER (0..7) | |

### 9.2.1.45B Process Memory Size

The *Process Memory Size* IE is the size of an HARQ process in the DRNS expressed in bits. It provides the maximum number of soft channel bits in the virtual IR buffer [9] or [46].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Process Memory Size | | | ENUMERATED (<br>800, 1600, 2400, 3200,<br>4000, 4800, 5600, 6400,<br>7200, 8000, 8800, 9600,<br>10400, 11200, 12000,<br>12800, 13600, 14400,<br>15200, 16000, 17600,<br>19200, 20800, 22400,<br>24000, 25600, 27200,<br>28800, 30400, 32000,<br>36000, 40000, 44000,<br>48000, 52000, 56000,<br>60000, 64000, 68000,<br>72000, 76000, 80000,<br>88000, 96000, 104000,<br>112000, 120000, 128000,<br>136000, 144000, 152000,<br>160000, 176000, 192000,<br>208000, 224000, 240000,<br>256000, 272000, 288000,<br>304000,…) | |

### 9.2.1.46 Puncture Limit

The maximum amount of puncturing for a transport channel in rate matching.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Puncture Limit | | | INTEGER (0..15) | 0: 40%<br>1: 44 %<br>…<br>14: 96%<br>15: 100% (no puncturing)<br>[FDD – Value 0 is not applicable for E-DPCH.] |

### 9.2.1.46A QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| QE-Selector | | | ENUMERATED(selected, non-selected) | |

### 9.2.1.47 RANAP Relocation Information

This parameter is transparent to the RNSAP. The parameter contains information for the Relocation procedure as defined in [2].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RANAP Relocation Information | | | BIT STRING | The content is defined in ref. [2]. |

### 9.2.1.48 Report Characteristics

The Report Characteristics, defines how the reporting shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Report Characteristics* | M | | | | – | |
| *>On Demand* | | | NULL | | – | |
| *>Periodic* | | | | | | |
| >>Report Periodicity | M | | 9.2.1.48a | The periodicity with which the DRNS shall send measurement reports. | – | |
| *>Event A* | | | | | | |
| >>Measurement Threshold | M | | 9.2.1.39 | The threshold for which the DRNS shall trigger a measurement report. | – | |
| >>Measurement Hysteresis Time | O | | 9.2.1.36A | | – | |
| *>Event B* | | | | | | |
| >>Measurement Threshold | M | | 9.2.1.39 | The threshold for which the DRNS shall trigger a measurement report. | – | |
| >>Measurement Hysteresis Time | O | | 9.2.1.36A | | – | |
| *>Event C* | | | | | | |
| >>Measurement Increase/Decrease Threshold | M | | 9.2.1.38 | | – | |
| >>Measurement Change Time | M | | 9.2.1.35B | The time within which the measurement entity shall rise, in order to trigger a measurement report. | – | |
| *>Event D* | | | | | | |
| >>Measurement Increase/Decrease Threshold | M | | 9.2.1.38 | | – | |
| >>Measurement Change Time | M | | 9.2.1.35B | The time within which the measurement entity shall fall, in order to trigger a measurement report. | – | |
| *>Event E* | | | | | | |
| >>Measurement Threshold 1 | M | | Measurement Threshold 9.2.1.39 | | – | |
| >>Measurement Threshold 2 | O | | Measurement Threshold | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | 9.2.1.39 | | | |
| >>Measurement Hysteresis Time | O | | 9.2.1.36A | The hysteresis time in ms | – | |
| >>Report Periodicity | O | | 9.2.1.48a | The periodicity with which the DRNS shall send measurement reports. | – | |
| *>Event F* | | | | | | |
| >>Measurement Threshold 1 | M | | Measurement Threshold 9.2.1.39 | | – | |
| >>Measurement Threshold 2 | O | | Measurement Threshold 9.2.1.39 | | – | |
| >>Measurement Hysteresis Time | O | | 9.2.1.36A | The hysteresis time in ms | – | |
| >>Report Periodicity | O | | 9.2.1.48a | The periodicity with which the DRNS shall send measurement reports. | – | |
| *>Additional Report Characteristics* | | | | | | |
| *>>On Modification* | | | | | | |
| >>> **On Modification** | | 1 | | | YES | reject |
| >>>>Measurement Threshold | M | | 9.2.1.39 | | | |

## 9.2.1.48a Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Report Periodicity Scale* | M | | | |
| *>millisecond* | | | | |
| >>Report Periodicity Value | M | | INTEGER (1..6000,…) | Unit: ms<br>Range: 10..60000 ms<br>Step: 10 ms |
| *>minute* | | | | |
| >>Report Periodicity Value | M | | INTEGER (1..60,…) | Unit: min<br>Range: 1..60 min<br>Step: 1 min |

## 9.2.1.48A Requested Data Value

The Requested Data Value contains the relevant data concerned the ongoing information exchange. *Requested Data Value* IE shall include at least one of the following IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| UTRAN Access Point Position with Altitude | O | | 9.2.1.75 | | – | |
| IPDL Parameters | O | | 9.2.1.31F | | – | |
| DGPS Corrections | O | | 9.2.1.19B | | – | |
| GPS Navigation Model and Time Recovery | O | | 9.2.1.30I | | – | |
| GPS Ionospheric Model | O | | 9.2.1.30H | | – | |
| GPS UTC Model | O | | 9.2.1.30L | | – | |
| GPS Almanac | O | | 9.2.1.30G | | – | |
| GPS Real-Time Integrity | O | | 9.2.1.30J | | – | |
| GPS RX Pos | O | | 9.2.1.30K | | – | |
| SFN-SFN Measurement Reference Point Position | O | | 9.2.1.74 | | – | |
| Cell Capacity Class Value | O | | 9.2.1.5C | | YES | ignore |
| NACC Related Data | O | | 9.2.1.41a | | YES | ignore |
| MBMS Bearer Service Full Address | O | | 9.2.1.84 | | YES | ignore |
| Inter-frequency Cell Information | O | | 9.2.1.31G | | YES | ignore |
| **GANSS Common Data** | | 0..1 | | | YES | ignore |
| >GANSS Ionospheric Model | O | | 9.2.1.105 | | – | |
| >GANSS RX Pos | O | | 9.2.1.109 | | – | |
| >GANSS Additional Ionospheric Model | O | | 9.2.1.105a | | YES | Ignore |
| >GANSS Earth Orientation Parameters | O | | 9.2.1.122a | | YES | Ignore |
| **GANSS Generic Data** | | *0..<maxnoofGANSS>* | | | GLOBAL | ignore |
| >GANSS ID | O | | 9.2.1.119 | | – | |
| >DGANSS Corrections | O | | 9.2.1.102 | | – | |
| >GANSS Navigation Model And Time Recovery | O | | 9.2.1.120 | | – | |
| >GANSS Time Model | O | | 9.2.1.110 | | – | |
| >GANSS UTC Model | O | | 9.2.1.111 | | – | |
| >GANSS Almanac | O | | 9.2.1.103 | | – | |
| >GANSS Real Time Integrity | O | | 9.2.1.108 | | – | |
| >GANSS Data Bit Assistance | O | | 9.2.1.118 | | – | |
| >GANSS Additional Time Models | O | | 9.2.1.110a | | YES | Ignore |
| >GANSS Additional Navigation Models And Time Recovery | O | | 9.2.1.120a | | YES | Ignore |
| >GANSS Additional UTC Models | O | | 9.2.1.111a | | YES | Ignore |
| >GANSS Auxiliary Information | O | | 9.2.1.122c | | YES | Ignore |
| >SBAS ID | C-*GANSS-ID* | | 9.2.1.122b | | YES | Ignore |
| Counting Information | O | | 9.2.2.94 | FDD only | YES | ignore |
| Transmission Mode Information | O | | 9.2.2.95 | FDD only | YES | ignore |
| MBMS Neighbouring Cell Information | O | | 9.2.2.96 | FDD only | YES | ignore |
| RLC Sequene Number | O | | 9.2.2.97 | FDD only | YES | ignore |

| Condition | Explanation |
|---|---|
| *GANSS-ID* | This IE shall be present if the *GANSS ID* IE indicates “SBAS”. |

| Range Bound | Explanation |
|---|---|
| *maxnoofGANSS* | Maximum number of GANSS Systems |

### 9.2.1.48B Requested Data Value Information

The *Requested Data Value Information* IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Information Availability Indicator* | M | | | | – | |
| *>Information Available* | | | | | – | |
| >>Requested Data Value | M | | 9.2.1.48A | | – | |
| *>Information not Available* | | | NULL | | – | |

### 9.2.1.48C Restriction State Indicator

The Restriction state indicator is the identifier indicates whether the cell is "Cell Reserved for Operator Use" or not. It is provided by DRNS and reported to SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Restriction state indicator | | | ENUMERATED(Cell Not Reserved for Operator Use, Cell Reserved for Operator Use, …) | |

### 9.2.1.48D RLC Mode

The *RLC Mode* IE indicates the RLC Mode used for a Priority Queue.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RLC Mode | | | ENUMERATED ( RLC-AM, RLC-UM,…) | |

### 9.2.1.49 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RL ID | | | INTEGER (0..31) | |

### 9.2.1.49A RL Specific DCH Information

The *RL Specific DCH Information* IE provides RL Specific DCH Information for DCHs. In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **RL Specific DCH Information** | | *1..<maxnoofDCHs>* | | | – | |
| >DCH ID | M | | 9.2.1.16 | | – | |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Bearer Not Requested Indicator | O | | 9.2.2.4S | FDD Only | YES | Ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |

### 9.2.1.50 RNC-ID

This is the identifier of one RNC in UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RNC-ID | | | INTEGER(0..4095) | |

### 9.2.1.50a Extended RNC-ID

This is the identifier of one RNC in UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Extended RNC-ID | | | INTEGER(4096..65535) | Note: Application of the *Extended RNC-ID* IE to very large networks is FFS. |

### 9.2.1.50A SAT ID

The SAT ID indicates the identity of the satellite.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SAT ID | | | INTEGER(0..63) | Identifies the satellite and is equal to (SV ID No – 1) where SV ID No is defined in [30]. |

### 9.2.1.50B RT Load Value

The *RT Load Value* IE indicates in percents the ratio of the load generated by Real Time traffic, relative to the measured Load Value. Real Time traffic corresponds to the Conversational and Streaming traffic classes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink RT Load Value | M | | INTEGER(0..100) | |
| Downlink RT Load Value | M | | INTEGER(0..100) | |

### 9.2.1.51 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that is assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SCH Time Slot | | | INTEGER(0..6) | |

### 9.2.1.51A Scheduling Priority Indicator

Indicates the relative priority of the FACH, [TDD – DSCH, USCH,] HS-DSCH [FDD – or E-DCH] data frame. Used by the DRNC when scheduling FACH, [TDD – DSCH, USCH,] HS-DSCH [FDD – or E-DCH] traffic.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Scheduling Priority Indicator | | | INTEGER(0..15) | Relative priority of the FACH, [TDD – DSCH, USCH,] HS-DSCH [FDD – or E-DCH] data frame:<br>0=Lowest Priority<br>…<br>15=Highest Priority |

### 9.2.1.52 Service Area Identifier (SAI)

This information element is used to identify an area consisting of one or more cells belonging to the same Location Area. Such an area is called a Service Area and can be used for indicating the location of a UE to the CN. For this protocol, only a Service Area that is defined to be applicable to the PS and CS domains shall be used.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br>-The PLMN Identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |
| SAC | M | | OCTET STRING (2) | |

### 9.2.1.52A SFN

System Frame Number of the cell, see ref. [17].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SFN | | | INTEGER(0. .4095) | |

### 9.2.1.52B SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SFN-SFN Change Limit | O | | INTEGER(1. .256) | Change of SFN-SFN value compared to previously reported value, which shall trigger a new report.<br>Unit in 1/16 chip. |
| Predicted SFN-SFN Deviation Limit | O | | INTEGER(1. .256) | Deviation the Predicted SFN-SFN from the latest measurement result, which shall trigger a new report.<br>Unit in 1/16 chip. |

### 9.2.1.52C SFN-SFN Measurement Value Information

The *SFN-SFN Measurement Value Information* IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information** | | *1..<maxnoofMeasNCell>* | | |
| >UTRAN Cell Identifier | M | | 9.2.1.71 | |
| >SFN-SFN Value | M | | 9.2.1.77 | |
| >SFN-SFN Quality | O | | INTEGER(0..255) | Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu = E[x]$ is the expectation value of x. |
| >SFN-SFN Drift Rate | M | | INTEGER(-100..100) | Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell. |
| >SFN-SFN Drift Rate Quality | O | | INTEGER(0..100) | Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x. |
| >SFN-SFN Measurement Time Stamp | M | | 9.2.1.76 | |
| **Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information** | | *0..<maxnoofMeasNCell-1>* | | |
| >UTRAN Cell Identifier | M | | 9.2.1.71 | |

| Range bound | Explanation |
|---|---|
| *maxnoofMeasNCell* | Maximum number of neighbouring cells on which measurements can be performed. |

## 9.2.1.52Ca Shared Network Area (SNA) Information

This information element contains a list of Shared Network Areas, identified by the Shared Network Area Code (SNAC, see [1]) which a certain cell belongs to. For a broader description of the SNA access control see [40].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br>-The PLMN Identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). |
| **List of SNAs** | | *0..<maxnoofSNAs>* | | |
| > SNAC | M | | INTEGER (0.. 65535) | |

| Range bound | Explanation |
|---|---|
| *maxnoofSNAs* | Maximum number of SNAs one cell can be part of. |

### 9.2.1.52D SID

The *SID* IE provides the identity of the Size Index.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SID | | | INTEGER (0..7) | |

### 9.2.1.53 S-RNTI

The S-RNTI identifies the UE in the SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| S-RNTI | | | INTEGER(0. .2^20 –1) | |

### 9.2.1.53a S-RNTI Group

The S-RNTI Group identifies a group of Ues in the SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| S-RNTI | M | | 9.2.1.53 | |
| S-RNTI bit mask index | M | | Enumerated( b1, b2,..b19,…) | |

The S-RNTI group is identified by all S-RNTI values whose bits starting from the most significant bit down to, and including, the bit indicated by S-RNTI bit mask index, are equal to the corresponding bits of the S-RNTI in this IE.

The bits of the S-RNTI in this IE that are less significant than the bit position indicated by the S-RNTI bit mask index shall be ignored.

### 9.2.1.54 Sync Case

The SCH and PCCPCH in a TDD cell are mapped on one or two downlink slots per frame. There are two cases of Sync Case as follows:

Case 1) SCH and PCCPCH allocated in a single TS#k

Case 2) SCH allocated in two TS: TS#k and TS#k+8
PCCPCH allocated in TS#k

[1.28Mcps TDD – There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from DRNC to SRNC used for 1.28Mcps TDD, the DRNC shall indicate Sync Case 1 and the SRNC shall ignore it.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Sync Case | | | INTEGER (1..2,...) | |

### 9.2.1.54A T1

The *T1* IE is used as described in ref [41] subclause 11.6.2.3.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| T1 | | | ENUMERATED (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 200, 300, 400, …) | Unit: ms<br>Node B may use this value to stop the re-transmission of the corresponding MAC-hs PDU. |

### 9.2.1.55 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD – If it is present in the timeslot, it will be mapped to the channelisation code defined by [12].]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TFCI Presence | | | ENUMERATED(Present, not present) | |

### 9.2.1.56 Time Slot

The Time Slot represents the time interval assigned to a Physical Channel referred to the start of a Radio Frame.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Time Slot | | | INTEGER (0..14) | |

### 9.2.1.56A TNL QoS

This IE indicates the TNL QoS characteristics of the transport bearer for the uplink data traffic.

When the *DS field* IE is used, the value of this IE is configurable by the operator.

When the G*eneric Traffic Category* IE is used, generic traffic categories are implementation-specific (e.g. they may be determined by the sender from the application parameters). The value assigned to each of these categories and sent in the *Generic Traffic Category* IE is configurable by the operator, as well as the mapping of this value to DS field [44] at the DRNS side.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *TNL QoS type* | M | | | |
| *>DS Field* | | | | |
| >>DS field | M | | BIT STRING (8) | DS field as defined in [44]. Typically used when the DRNS and its SRNC are in the same DS domain as defined in [45]. |
| *>Generic Traffic Category* | | | | |
| >>Generic Traffic Category | M | | BIT STRING (8) | |

### 9.2.1.57 ToAWE

ToAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. ToAWE is defined with a positive value relative Latest Time of Arrival (LtoA). A data frame arriving after ToAWE gives a Timing Adjustment Control frame response.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| ToAWE | | | INTEGER (0..2559) | Unit: msec. |

### 9.2.1.58 ToAWS

ToAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. ToAWS is defined with a positive value relative Time of Arrival Window Endpoint (ToAWE). A data frame arriving before ToAWS gives a Timing Adjustment Control frame response.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| ToAWS | | | INTEGER (0..1279) | Unit: msec. |

### 9.2.1.58a Trace Depth

The *Trace Depth* IE is Trace Configuration Parameter what should be traced by the DRNC on the indicated interfaces.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Trace Depth | | | ENUMERATED ( Minimum, Medium, Maximum,…) | Meaning of this parameter is described in [49] |

### 9.2.1.58b Trace Recording Session Reference

The *Trace Recording Session Reference* IE provides a Trace Recording Session Reference allocated by the triggering entity.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Trace Recording Session Reference | | | INTEGER (0..65535) | |

### 9.2.1.58c Trace Reference

The *Trace Reference* IE provides a Trace Reference allocated by the triggering entity.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Trace Reference | | | OCTET STRING (SIZE(2..3)) | |

### 9.2.1.58A Traffic Class

This IE indicates the type of application the Radio Bearer is optimised for.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Traffic Class | | | ENUMERATED (conversational, streaming, interactive, background, ...) | |

### 9.2.1.59 Transaction ID

The Transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same Transaction ID.

The Transaction ID is determined by the initiating peer of a procedure.

For procedures addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures for the same UE using the same procedure code, and initiated by the same protocol peer.

For procedures not addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures using the same procedure code, and initiated by the same protocol peer.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Transaction ID Length* | | | | The Transaction ID shall be interpreted for its integer value, not for the type of encoding (“short” or “long”). |
| *>Short* | | | | |
| >>Transaction ID Value | M | | INTEGER (0..127) | |
| *>Long* | | | | |
| >>Transaction ID Value | M | | INTEGER (0..32767) | |

### 9.2.1.59A Transmitted Carrier Power

The *Transmitted Carrier Power* IE contains the Transmitted Carrier Power in a cell, as defined in [11] & [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transmitted Carrier Power | | | INTEGER(0. .100) | According to mapping in [23] and [24]. |

### 9.2.1.59B $T_{UTRAN-GPS}$ Accuracy Class

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $T_{UTRAN-GPS}$ Accuracy Class | | | ENUMERATED(Accuracy Class A, Accuracy Class B, Accuracy Class C,…) | More information about Measurement Accuracy Class is included in [23]. |

### 9.2.1.59C $T_{UTRAN-GPS}$ Measurement Threshold Information

The $T_{UTRAN-GPS}$ Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the Event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $T_{UTRAN-GPS}$ Change Limit | O | | INTEGER(1. .256) | Change of $T_{UTRAN-GPS}$ value compared to previously reported value, which shall trigger a new report.<br>Unit in 1/16 chip. |
| Predicted $T_{UTRAN-GPS}$ Deviation Limit | O | | INTEGER(1. .256) | Deviation of the Predicted $T_{UTRAN-GPS}$ from the latest measurement result, which shall trigger a new report.<br>Unit in 1/16 chip. |

### 9.2.1.59D $T_{UTRAN-GPS}$ Measurement Value Information

The $T_{UTRAN-GPS}$ *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **$T_{UTRAN-GPS}$** | | 1 | | Indicates the UTRAN GPS Timing of Cell Frames for UE Positioning. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999. |
| >MS | M | | INTEGER (0..16383) | Most Significant Part |
| >LS | M | | INTEGER (0..4294967295) | Least Significant Part |
| $T_{UTRAN-GPS}$ Quality | O | | INTEGER(0..255) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip. $T_{UTRAN-GPS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and $\mu = E[x]$ is the expectation value of x. |
| $T_{UTRAN-GPS}$ Drift Rate | M | | INTEGER(-50..50) | Indicates the $T_{UTRAN-GPS}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock. |
| $T_{UTRAN-GPS}$ Drift Rate Quality | O | | INTEGER(0..50) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and $\mu = E[x]$ is the expectation value of x. |

### 9.2.1.60 Transport Bearer ID

The Transport Bearer ID uniquely identifies an Iur transport bearer.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transport Bearer ID | | | INTEGER(0..4095) | |

### 9.2.1.61 Transport Bearer Request Indicator

Indicates whether a new Iur transport bearer needs to be established for carrying the corresponding data stream(s), or whether an existing transport bearer will be used.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transport Bearer Request Indicator | | | ENUMERATED(Bearer Requested, Bearer not Requested, …) | |

### 9.2.1.62 Transport Layer Address

In case of transport bearer establishment with ALCAP [3] [35], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [3] [35].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see [3].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transport Layer Address | | | BIT STRING(1..160, …) | |

### 9.2.1.63 Transport Format Combination Set (TFCS)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable to DL Transport Channels.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE TFCS Values | M | | | |
| >Always Used | | | | This choice is always made. |
| **>>TFCS** | | *1..<maxnoofTFCs>* | | The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on.<br>[TDD – The first entry (for TFCI 0) should be ignored by the receiver.] |
| >>>CTFC | M | | 9.2.1.14A | |
| >>>CHOICE Gain Factors | C-PhysChan | | | |
| >>>>Signalled Gain Factors | | | | |
| >>>>>Gain Factor $\beta_C$ | M | | INTEGER(0..15) | [FDD – For UL DPCCH or control part of PRACH ref. [21].]<br>[TDD - $\beta$ for UL DPCH mapping in accordance to [13].] |
| >>>>>Gain Factor $\beta_D$ | M | | INTEGER(0..15) | [FDD – For UL DPDCH or data part of PRACH ref. [21].]<br>[TDD – Should be set to 0 by the sender, and shall be ignored by the receiver.] |
| >>>>>Reference TFC nr | O | | INTEGER(0..15) | If this TFC is a reference TFC, this IE indicates the reference number |
| >>>>Computed Gain Factors | | | | |
| >>>>>Reference TFC nr | M | | INTEGER(0..15) | Indicates the reference TFC to be used to calculate the gain factors for this TFC |
| >Not Used | | | NULL | This choice shall never be made by the SRNC and the DRNC shall consider the procedure as failed if it is received. |

| Condition | Explanation |
|---|---|
| PhysChan | The choice shall be present if the TFCS concerns a UL DPCH [FDD – or PRACH channel]. |

| Range bound | Explanation |
|---|---|
| *maxnoofTFCs* | The maximum number of Transport Format Combinations. |

## 9.2.1.64 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD – The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the *2nd Interleaving Mode* IE.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Dynamic Transport Format Information** | | *1..<maxTFcount>* | | The first instance of the parameter corresponds to TFI zero, the second to 1 and so on. |
| >Number of Transport Blocks | M | | INTEGER (0..512) | |
| >Transport Block Size | C – Blocks | | INTEGER (0..5000) | Unit: Bits |
| >CHOICE *Mode* | M | | | |
| >>*TDD* | | | | |
| >>>**Transmission Time Interval Information** | C-TTIdynamic | *1..<maxTTIcount>* | | |
| >>>>Transmission Time Interval | M | | ENUMERATED(10, 20, 40, 80,…) | Unit: msec |
| **Semi-static Transport Format Information** | | 1 | | |
| >Transmission Time Interval | M | | ENUMERATED (10, 20, 40, 80, dynamic, …) | Unit: msec<br>Value “dynamic” for TDD only.<br>For FDD DCH, the value “80” is applicable only when *DL DPCH Slot Format* IE indicates a slot format with SF=512. |
| >Type of Channel Coding | M | | ENUMERATED (No codingTDD, Convolutional, Turbo,…) | [FDD – The value “No codingTDD” shall be treated as logical error if received] |
| >Coding Rate | C – Coding | | ENUMERATED (1/2, 1/3,…) | |
| >Rate Matching Attribute | M | | INTEGER (1..maxRM) | |
| >CRC size | M | | ENUMERATED (0, 8, 12, 16, 24,…) | |
| >CHOICE *Mode* | M | | | |
| >>*TDD* | | | | |
| >>>2nd Interleaving Mode | M | | ENUMERATED(Frame related, Timeslot related,…) | |

| Condition | Explanation |
|---|---|
| Blocks | The IE shall be present if the *Number of Transport Blocks* IE is set to a value greater than 0. |
| Coding | The IE shall be present if *Type of Channel Coding* IE is set to “Convolutional” or “Turbo”. |
| TTIdynamic | The IE shall be present if the *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE is set to “dynamic”. |

| Range bound | Explanation |
|---|---|
| *maxTFcount* | The maximum number of different transport formats that can be included in the Transport format set for one transport channel. |
| *maxRM* | The maximum number that could be set as rate matching attribute for a transport channel. |
| *maxTTIcount* | The amount of different TTI that are possible for that transport format is. |

### 9.2.1.65 TrCH Source Statistics Descriptor

Defines the statistics of the data transmitted in the transport channel. This information may be used in reserving resources in the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TrCH Source Statistics Descriptor | | | ENUMERATED(Speech, RRC, Unknown, …) | "Speech" = Statistics of the data corresponds to speech.<br>"RRC" = Statistics of the data corresponds to RRC signalling<br>"Unknown" = The statistics of the data is unknown |

### 9.2.1.66 UARFCN

The UTRA Absolute Radio Frequency Channel Number defines the carrier.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UARFCN | | | INTEGER(0..16383, …) | Corresponds to: 0.0Hz..3276.6MHz<br>see ref. [6] and ref. [7]. |

### 9.2.1.66A UE Identity

The *UE Identity* IE identifies the UE by one of its Permanent NAS Identifier.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *UE Identity* | M | | | |
| *>IMSI* | | | | |
| >>IMSI | M | | 9.2.1.31 | |
| *>IMEI* | | | | |
| >>IMEI | M | | 9.2.1.30T | |
| *>IMEISV* | | | | |
| >>IMEISV | M | | 9.2.1.30U | |

### 9.2.1.67 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL FP Mode | | | ENUMERATED(Normal, Silent,…) | |

### 9.2.1.68 UL Interference Level

Void

### 9.2.1.68A Uncertainty Ellipse

This IE contains the uncertainty ellipse used to describe a possible shape of the geographical area of a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uncertainty semi-major | M | | INTEGER( 0..127) | The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^k-1)$ |
| Uncertainty semi-minor | M | | INTEGER( 0..127) | The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^k-1)$ |
| Orientation of major axis | M | | INTEGER( 0..179) | The relation between the IE value (N) and the angle (a) in degrees it describes is $2N \leq a < 2(N+1)$. The values 90..179 shall not be used. |

### 9.2.1.68B Unidirectional DCH Indicator

The *Unidirectional DCH Indicator* IE indicates that the DCH is unidirectional.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Unidirectional DCH Indicator | | | ENUMERATED (Downlink DCH only, Uplink DCH only) | |

### 9.2.1.69 Uplink SIR

The UL SIR indicates a received UL SIR.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink SIR | | | INTEGER (-82..173) | Value = Uplink SIR/10<br>Unit dB<br>Range -8.2..+17.3<br>Step 0.1 dB |

### 9.2.1.70 URA ID

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| URA ID | | | INTEGER(0. .65 535) | |

### 9.2.1.70A UTRAN Access Point Position

The UTRAN Access Point Position indicates the exact geographical position of the base station antenna.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Latitude Sign | M | | ENUMERATED(North, South) | |
| Degrees of Latitude | M | | INTEGER( $0..2^{23}$-1) | The IE value (N) is derived by this formula:<br>$N \leq 2^{23} X /90 < N+1$<br>X being the latitude in degree (0°.. 90°) |
| Degrees of Longitude | M | | INTEGER( $-2^{23}..2^{23}$-1) | The IE value (N) is derived by this formula:<br>$N \leq 2^{24} X /360 < N+1$<br>X being the longitude in degree (-180°..+180°) |

## 9.2.1.70B URA Information

The *URA Information* IE contains URA Information for one cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| URA ID | M | | 9.2.1.70 | | – | |
| Multiple URAs Indicator | M | | 9.2.1.41 | | – | |
| **RNCs with Cells in the Accessed URA** | | *0 .. <maxRNCinURA-1>* | | Other RNCs having at least one cell in the URA identified by the *URA ID* IE. | – | |
| >RNC-ID | M | | 9.2.1.50 | If the *Extended RNC-ID* IE is included in the *URA Information* IE, the *RNC-ID* IE shall be ignored. | – | |
| >Extended RNC-ID | O | | 9.2.1.50a | The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095. | YES | reject |

| Range Bound | Explanation |
|---|---|
| *maxRNCinURA* | Maximum number of RNC in one URA. |

## 9.2.1.70C User Plane Congestion Fields Inclusion

The *User Plane Congestion Fields Inclusion* IE is used by the DRNC to indicate to the SRNC to include in the HS-DSCH Data Frames the User Plane fields related to TNL Congestion Control for HSDPA (namely the Frame Sequence Number and the DRT, see [32]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| User Plane Congestion Fields Inclusion | | | ENUMERATED ( Shall be included) | |

### 9.2.1.71 UTRAN Cell Identifier (UC-ID)

The UC-ID (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RNC-ID | M | | 9.2.1.50 | If the *Extended RNC-ID* IE is included in the *UC-ID* IE, the *RNC-ID* IE shall be ignored. |
| C-ID | M | | 9.2.1.6 | |
| Extended RNC-ID | O | | 9.2.1.50a | The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095. |

### 9.2.1.72 Neighbouring TDD Cell Information LCR

The *Neighbouring TDD Cell Information LCR* IE provides information for 1.28Mcps TDD cells that are neighbouring cells to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Neighbouring TDD Cell Information LCR** | | *1..<maxnoofLCRTDDneighbours>* | | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >UARFCN | M | | 9.2.1.66 | Corresponds to Nt in ref. [7] | – | |
| >Frame Offset | O | | 9.2.1.30 | | – | |
| >Cell Parameter ID | M | | 9.2.1.8 | | – | |
| >SCTD Indicator | M | | 9.2.1.78 | | – | |
| >Cell Individual Offset | O | | 9.2.1.7 | | – | |
| >DPCH Constant Value | O | | 9.2.1.23 | | – | |
| >PCCPCH Power | O | | 9.2.1.43 | | – | |
| >Restriction State Indicator | O | | 9.2.1.48C | | – | |
| >Coverage Indicator | O | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | O | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Cell Capability Container TDD LCR | O | | 9.2.3.1b | | YES | ignore |
| > SNA Information | O | | 9.2.1.52Ca | | YES | ignore |
| >Multiple PLMN List | O | | 9.2.1.117 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofLCRTDDneighbours* | Maximum number of neighbouring 1.28Mcps TDD cell for one cell. |

### 9.2.1.73 Permanent NAS UE Identity

This element is used to identify the UE in UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Choice *Permanent NAS UE Identity* | | | | |
| *>IMSI* | | | | |
| >>IMSI | M | | 9.2.1.31 | |

### 9.2.1.74 SFN-SFN Measurement Reference Point Position

The SFN-SFN Measurement Reference Point Position indicates the exact geographical position of the SFN-SFN measurement reference point. The altitude shall be included when available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | O | | 9.2.1.2B | |

### 9.2.1.75 UTRAN Access Point Position with Altitude

The UTRAN Access Point Position with Altitude indicates the exact geographical position of the base station antenna. The altitude shall be included when available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | O | | 9.2.1.2B | |

### 9.2.1.76 SFN-SFN Measurement Time Stamp

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Mode* | M | | | |
| *>FDD* | | | | |
| >>SFN | M | | 9.2.1.52A | Indicates the SFN of the reference cell at which the measurement has been performed. |
| *>TDD* | | | | |
| >>SFN | M | | 9.2.1.52A | Indicates the SFN of the reference cell at which the measurement has been performed. |
| >>Time Slot | M | | 9.2.1.56 | Indicates the Time Slot of the reference cell at which this measurement has been performed. |

### 9.2.1.77 SFN-SFN Value

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Mode* | M | | | |
| *>FDD* | | | | |
| >>SFN-SFN | M | | INTEGER(0. . 614399) | According to mapping in [23]. |
| *>TDD* | | | | 1.28Mcps or 3.84Mcps TDD |
| >>SFN-SFN | M | | INTEGER(0. . 40961) | According to mapping in [24]. |
| *>TDD 7.68Mcps* | | | | |
| >>SFN-SFN | M | | INTEGER(0. . 81923) | According to mapping in [24]. |

### 9.2.1.78 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to the PCCPCH and PICH [3.84Mcps TDD].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SCTD Indicator | | | ENUMERATED(active, inactive) | |

### 9.2.1.79 Congestion Cause

The *Congestion Cause* IE indicates the cause of a congestion situation:

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Congestion Cause | | | ENUMERATED (UTRAN Dynamic Resources, UTRAN Semistatic Resources, …) | |

The meaning of the different congestion cause values is described in the following table:

| Congestion cause | Meaning |
|---|---|
| UTRAN Dynamic Resources | UL and/or DL resource congestion situation mainly caused by the UL and/or DL UTRAN Dynamic Resources. This type of congestion situation is, e.g. related to the limitation of the DL transmitted carrier power of the cell(s), or the UL Interference situation in the concerned cell(s). |
| UTRAN Semistatic Resources | UL and/or DL resource congestion situation mainly related to UTRAN Semistatic Resources (e.g. channelisation codes, Node-B resources, ..). |

### 9.2.1.80 TMGI

The TMGI is the unique identifier for an MBMS bearer service, see ref.[1].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br>-The PLMN Identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). |
| Service ID | M | | OCTET STRING (3) | |

### 9.2.1.81 Transmission Mode

The *Transmission Mode* IE indicates the transmission mode used for MBMS data transmission in one cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transmission Mode | | | ENUMERATED(PTP, PTM, Not Provided). | PTP: The MBMS data is transmitted through point to point channel.<br>PTM: The MBMS data is transmitted through point to multipoint channel.<br>Not Provided: The MBMS data is not transmitted in the DRNC. |

### 9.2.1.82 Access Point Name

The APN and IP Multicast Address uniquely identify an MBMS bearer service.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| APN | M | | OCTET STRING (1..255) | |

### 9.2.1.83 IP Multicast Address

The APN and IP Multicast Address uniquely identify an MBMS bearer service.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IP Multicast Address | M | | OCTET STRING (4..16) | |

### 9.2.1.84 MBMS Bearer Service Full Address

This IE provides the full address of an MBMS Bearer Service otherwise identified by its TMGI.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Access Point Name | M | | 9.2.1.82 | |
| IP Multicast Address | M | | 9.2.1.83 | |

### 9.2.1.85 Provided Information

This IE contains the relevant data concerned the direct information transfer procedure. *Provided Information* IE shall include at least one of the following IEs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| MBMS Channel Type Information | O | | 9.2.1.86 | | | |
| MBMS Preferred Frequency Layer Information | O | | 9.2.1.87 | | | |
| UpPCH Information LCR | O | | 9.2.3.55 | Applicable to 1.28Mcps TDD only . | YES | ignore |

### 9.2.1.86 MBMS Channel Type Information

This IE contains the channel types of a MBMS Bearer Service indicated by *TMGI* IE in one or more cells. *MBMS Channel Type Information* IE shall include at least one *C-ID* IE and *Affected UE Information for MBMS* IE in the *PTM Cell List* IE, the *PTP Cell List* IE and/or *Not Provided Cell List* IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TMGI | M | | 9.2.1.80 | |
| **PTM Cell List** | | *0..<maxnoofCells>* | | |
| >C-ID | M | | 9.2.1.6 | |
| **>Affected UE Information for MBMS** | | *0..<maxnoofUEs>* | | |
| >>S-RNTI | M | | 9.2.1.53 | |
| **PTP Cell List** | | *0.. <maxnoofCells>* | | |
| >C-ID | M | | 9.2.1.6 | |
| **>Affected UE Information for MBMS** | | *0..<maxnoofUEs>* | | |
| >>S-RNTI | M | | 9.2.1.53 | |
| **Not Provided Cell List** | | *0.. <maxnoofCells>* | | |
| >C-ID | M | | 9.2.1.6 | |
| **>Affected UE Information for MBMS** | | *0..<maxnoofUEs>* | | |
| >>S-RNTI | M | | 9.2.1.53 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofCells* | Maximum number of cells that can be indicated in the corresponding IE. |
| *maxnoofUEs* | Maximum number of S-RNTIs that can be indicated per cell in the respective IEs. |

### 9.2.1.87 MBMS Preferred Frequency Layer Information

This IE contains the preferred frequency layer of a MBMS Bearer Service indicated by *TMGI* IE in one or more cells that host at least one CELL_DCH UE whose UE Link contains the concerned MBMS Bearer Service and whose SRNC is different from the CRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TMGI | M | | 9.2.1.80 | |
| **Preferred Frequency Layer Information** | | | | |
| >Default Preferred Frequency | M | | UARFCN 9.2.1.66 | |
| **>Additional Preferred Frequency** | | *0..<maxnoofAddFreq>* | | Preferred frequencies different from default preferred frequency |
| >>DL UARFCN | M | | UARFCN 9.2.1.66 | |
| **>>Corresponding Cells** | | *1..<maxnoofCellsPerFreq>* | | |
| >>>C-ID | M | | 9.2.1.6 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofAddFreq* | Maximum number of additional preferred frequencies different from default preferred frequency in an RNC. |
| *maxnoofCellsPerFreq* | Maximum number of cells whose preferred frequency is the same. |

### 9.2.1.88 E-DCH DDI Value

The *E-DCH DDI Value* IE is the Data Description Indicator value identifying a unique combination of E-DCH MAC-d Flow ID and MAC-d PDU Size.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH DDI Value | | | INTEGER (0..62) | |

### 9.2.1.89 E-DCH MAC-d Flow Multiplexing List

The E-DCH MAC-d Flow Multiplexing List indicates which E-DCH MAC-d flows are allowed to be multiplexed within a MAC-e PDU with the MAC-d flow it is associated to. If the E-DCH MAC-d Flow Multiplexing List is signalled for an E-DCH MAC-d flow it indicates that E-DCH MAC-d PDUs of this E-DCH MAC-d flow are the first E-DCH MAC-d PDU in the MAC-e PDU. If an E-DCH MAC-d Flow Multiplexing List was already received within a previous Radio Link related procedure and no E-DCH MAC-d Flow Multiplexing List is signalled for a E-DCH MAC-d flow, the DRNS shall continue to use the previously received one. If no E-DCH MAC-d Flow Multiplexing List was ever received for an E-DCH MAC-d flow no restrictions shall be assumed for the related E-DCH MAC-d flow for multiplexing E-DCH MAC-d flows.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH MAC-d Flow Multiplexing List | | | BIT STRING (8) | The first Bit corresponds to E-DCH MAC-d flow 0, the second bit corresponds to E-DCH MAC-d flow 1, etc. |

### 9.2.1.90 E-DCH MAC-d Flows To Delete

The *E-DCH MAC-d Flows To Delete* IE is used for the removal of E-DCH MAC-d flows.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flows To Delete** | | *1..<maxnoofEDCH MACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

### 9.2.1.91 E-DCH MAC-d Flow ID

The *E-DCH MAC-d Flow ID* IE is the unique identifier for one MAC-d flow on E-DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH MAC-d Flow ID | | | INTEGER (0.. maxnoofEDCHMACdFlows-1) | |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

### 9.2.1.91A E-DCH MAC-d PDU Size Format

The *E-DCH MAC-d PDU Size Format* IE provides information about the type of MAC-d PDU Size Format thet shall be used for the E-DCH in the new configuration. “Fixed MAC-d PDU Size” uses MAC-d PDU sizes defined in *MAC-d PDU Size List* IE of the *E-DCH Logical Channel Information* IE. “Flexible MAC-d PDU Size” uses a flexible MAC-d PDU size with a maximum PDU size as defined by *Maximum MAC-d PDU Size Extended* IE of *E-DCH Logical Channel Information* IE. The actual MAC-d PDU size is determined as specified in [24] and [32].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH MAC-d PDU Size Format | | | ENUMERATED (Fixed MAC-d PDU Size, Flexible MAC-d PDU Size) | |

### 9.2.1.92 E-DCH Logical Channel Information

The *E-DCH Logical Channel Information* IE is used for the establishment of E-DCH Logical Channels.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH Logical Channel Information** | | *1..<maxnooflogicalchannels>* | | | – | |
| >Logical Channel ID | M | | 9.2.1.97 | | – | |
| >Scheduling Priority Indicator | M | | 9.2.1.51A | | – | |
| >Scheduling Information | M | | 9.2.1.101 | | – | |
| >MAC-es Guaranteed Bit Rate | O | | 9.2.1.98 | | – | |
| >E-DCH DDI Value | M | | 9.2.1.88 | If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value. Value "0x3F" is reserved. Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present. | – | |
| **>MAC-d PDU Size List** | | *1..< maxnoofMACdPDUSize* | | | – | |
| >>MAC-d PDU Size | M | | 9.2.1.34A | Shall be ignored if *Maximum MAC-d PDU Size Extended IE* is present. | – | |
| >Maximum MAC-d PDU Size Extended | O | | MAC PDU Size Extended 9.2.1.34D | | YES | reject |
| >MAC-es Maximum Bit Rate LCR | O | | 9.2.3.59 | 1.28Mcps TDD only | YES | ignore |
| >UE Aggregate Maximum Bit Rate Enforcement Indicator | O | | NULL | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnooflogicalchannels* | Maximum number of logical channels |
| *maxnoofMACdPDUSize* | Maximum number of MAC-d PDU size per Logical Channels |

## 9.2.1.93 E-DCH Logical Channel To Modify

The *E-DCH Logical Channel To Modify* IE is used for the reconfiguration of E-DCH Logical Channels.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH Logical Channel Information** | | *1..<maxnooflogicalchannels>* | | | – | |
| >Logical Channel ID | M | | 9.2.1.97 | | – | |
| >Scheduling Priority Indicator | O | | 9.2.1.51A | | – | |
| >Scheduling Information | O | | 9.2.1.101 | | – | |
| >MAC-es Guaranteed Bit Rate | O | | 9.2.1.98 | | – | |
| >E-DCH DDI Value | O | | 9.2.1.88 | If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value. Value "0x3F" is reserved. Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present. | – | |
| **>MAC-d PDU Size List** | | *0..< maxnoofMACdPDUSize* | | | – | |
| >>MAC-d PDU Size | M | | 9.2.1.34A | | – | |
| >Maximum MAC-d PDU Size Extended | O | | MAC PDU Size Extended 9.2.1.34D | | YES | reject |
| >MAC-es Maximum Bit Rate LCR | O | | 9.2.3.59 | 1.28Mcps TDD only | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnooflogicalchannels* | Maximum number of logical channels |
| *maxnoofMACdPDUSize* | Maximum number of MAC-d PDU size per Logical Channels |

## 9.2.1.94 E-RNTI

The *E-RNTI* IE is needed for the UE (or UE group) specific CRC in E-AGCH, see ref. [52].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RNTI | | | INTEGER (0..65535) | |

## 9.2.1.95 E-DCH Processing Overload Level

The *E-DCH Processing Overload Level* IE defines the threshold that determines when DRNS shall indicate processing issue problems to the SRNC.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| E-DCH Processing Overload Level | | | INTEGER (0..10,…) | Number of consecutive TTIs.<br>The value "0" is a special value, that means infinity, i.e. when this value is used, the DRNS shall never indicate processing issue to the RNC. |

### 9.2.1.96 E-DCH Power Offset for Scheduling Info

The E-DCH Power Offset for Scheduling Info is used to calculate the [FDD – E-DPDCH][TDD – E-PUCH] power for transmision of scheduling information without any MAC-d PDUs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Power Offset for Scheduling Info | | | INTEGER (0..6) | Unit: dB<br>Step: 1 dB |

### 9.2.1.97 Logical channel ID

The *Logical Channel ID* IE is used to identify a E-DCH logical channel in Scheduling Information that is sent over Uu.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Logical Channel ID | | INTEGER (1..15) | | |

### 9.2.1.98 MAC-es Guaranteed Bit Rate

The *MAC-es Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second to be delivered over the air interface under normal operating conditions (provided there is data to deliver) for which the Node B shall provide sufficient UL resources. If the *MAC-es Guaranteed Bit Rate* IE is received with the value set to 0 during RL set up or modification, no guarantee is applied.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| MAC-es Guaranteed Bit Rate | | | INTEGER (0..2^24-1, …, 2^24..256,000,000) | Unit: bit/s |

### 9.2.1.99 MAC-e Reset Indicator

Indicates the MAC-e (or MAC-i) Reset is performed in UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-e Reset Indicator | | | ENUMERATED (MAC-e Reset) | Means MAC-I Reset in case Maximum MAC-d PDU Size Extended is configured for an E-DCH Logical Channel. |

### 9.2.1.100 Maximum Number of Retransmissions for E-DCH

The *Maximum Number of Retransmissions for E-DCH* IE specifies the upper boundary for retransmissions for a single MAC-d flow.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of Retransmissions for E-DCH | | | INTEGER (0..15) | |

### 9.2.1.101 Scheduling Information

The *Scheduling Information* IE indicates whether the scheduling information is included for the E-DCH logical channel or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Scheduling Information | | | ENUMERATED ( Included, Not Included) | |

### 9.2.1.102 DGANSS Corrections

This IE contains DGANSS corrections.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| DGANSS Reference Time | M | | INTEGER(0..3570 by step of 30) | Seconds. Time in GNSS system time (modulo 3600 s) when the DGANSS corrections were calculated | - | |
| **DGANSS Information** | | *1 to <maxSgnType>* | | | - | |
| >GANSS Signal ID | O | | 9.2.1.121 | | - | |
| >Status/Health | M | | ENUMERATED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.2, UDRE scale 0.1, no data, invalid data) | | - | |
| **>DGANSS Signal Information** | C-*Status/Health* | *1 to <maxGANSSSat>* | | If the Cipher information is included these fields are ciphered | - | |
| >>Sat ID | M | | INTEGER(0..63) | Defined in [16]. | - | |
| >>IOD | M | | BIT STRING(10) | | - | |

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>UDRE | M | | ENUMERATED (UDRE ≤ 1.0 m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE) | The value in this field shall be multiplied by the UDRE Scale Factor in the IE Status/Health to determine the final UDRE estimate for the particular satellite. | - | |
| >>PRC | M | | INTEGER(-2047..2047) | Scaling factor 0.32 meters | - | |
| >>RRC | M | | INTEGER(-127..127) | Scaling factor 0.032 meters/sec | - | |
| >>DGNSS Validity Period | O | | 9.2.1.138 | | YES | ignore |

| Condition | Explanation |
|---|---|
| *Status/Health* | This IE shall be present if the *Status/Health* IE value is not equal to “no data” or “invalid data”. |

| Range Bound | Explanation |
|---|---|
| *maxGANSSSat* | Maximum number of satellites for which data is included in the IE |
| *maxSgnType* | Maximum number of signals for which data is included in the IE |

### 9.2.1.103 GANSS Almanac

This IE contains a reduced-precision subset of the ephemeris and clock correction parameters.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Week Number | M | | INTEGER(0..255) | Almanac reference week , number of weeks since the beginning of GANSS specific system time (mod 256) | – | |
| CHOICE *Almanac Model* | M | | | | – | |
| *>Keplerian Parameters* | | | | Model 1 | | |
| >>$T_{oa}$ | M | | INTEGER(0..255) | Scaling factor $2^{12}$ s Reference time of almanac within week in GANSS TOD time base | – | |
| >>$IOD_a$ | M | | INTEGER(0..3) | Issue-Of –Data, common to all satellites | – | |
| >>**Satellite Information KP** | | *1 to <maxGANSSSatAlmanac>* | | Almanacs are in the order of the SV IDs, the smallest ID first. | – | |
| >>>Sat ID | M | | INTEGER(0..63) | Defined in [16]. | – | |
| >>>e | M | | BIT STRING(11) | Eccentricity, dimensionless [53] | – | |
| >>>$\delta i$ | M | | BIT STRING(11) | semi-circles [53] | – | |
| >>>OMEGADOT | M | | BIT STRING(11) | Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles/sec) [53] | – | |
| >>>SV Health KP | M | | BIT STRING(4) | dimensionless | – | |
| >>>delta $A^{1/2}$ | M | | BIT STRING(17) | Semi-Major Axis delta $(meters)^{1/2}$ [53] | – | |
| >>>$OMEGA_0$ | M | | BIT STRING(16) | Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles) [53] | – | |
| >>>$M_0$ | M | | BIT STRING(16) | Mean Anomaly at Reference Time (semi-circles) [53] | – | |
| >>>$\omega$ | M | | BIT STRING(16) | Argument of Perigee (semi-circles) [53] | – | |
| >>>$af_0$ | M | | BIT STRING(14) | Seconds [53] | – | |
| >>>$af_1$ | M | | BIT STRING(11) | sec/sec [53] | – | |
| *>NAV Keplerian Parameters* | | | | Model 2 | | |
| >>Keplerian NAV Almanac | M | | | | YES | ignore |
| >>>$T_{oa}$ | M | | INTEGER(0..255) | Scaling factor $2^{12}$ s Reference time of almanac within week in GANSS TOD time base | – | |
| >>>**Satellite information NAV-KP** | | 1.. <maxGANSSSatA | | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | lmanac> | | | | |
| >>>>Sat ID | M | | INTEGER (0..63) | Defined in [16]. | – | |
| >>>>e | M | | BIT STRING(16) | Eccentricity, dimensionless [59] | – | |
| >>>>$\delta$i | M | | BIT STRING (16) | Correction to inclination, semi-circles [59] | – | |
| >>>>OMEGADOT | M | | BIT STRING (16) | Rate of right ascension, semi-circles/sec [59] | – | |
| >>>>SV Health | M | | BIT STRING (8) | Satellite health [59] | – | |
| >>>>$A^{1/2}$ | M | | BIT STRING (24) | Square root of the semi-major axis, meters$^{1/2}$ [59] | – | |
| >>>>$OMEGA_0$ | M | | BIT STRING (24) | Longitude of ascending node of orbit plane at weekly epoch, semi-circles [59] | – | |
| >>>>$\omega$ | M | | BIT STRING (24) | Argument of perigee semi-circles [59] | – | |
| >>>>$M_0$ | M | | BIT STRING (24) | Mean anomaly at reference time semi-circles [59] | – | |
| >>>>$af_0$ | M | | BIT STRING (11) | Apparent satellite clock correction seconds [59] | – | |
| >>>>$af_1$ | M | | BIT STRING (11) | Apparent satellite clock correction sec/sec [59] | – | |
| >*Reduced Keplerian Parameters* | | | | Model 3 | | |
| >>Keplerian Reduced Almanac | M | | | | YES | ignore |
| >>>$T_{oa}$ | M | | INTEGER(0..255) | Scaling factor $2^{12}$ s Reference time of almanac within week in GANSS TOD time base | – | |
| >>>**Satellite information RED-KP** | | 1.. <maxGANSSSatAlmanac> | | | – | |
| >>>>Sat ID | M | | INTEGER (0..63) | Defined in [16]. | – | |
| >>>>$\delta_A$ | M | | BIT STRING(8) | meters [55,56,57,59] | – | |
| >>>>$\Omega_0$ | M | | BIT STRING (7) | semi-circles [55,56,57,59] | – | |
| >>>>$\Phi_0$ | M | | BIT STRING (7) | semi-circles [55,56,57,59] | – | |
| >>>>L1 Health | M | | BIT STRING (1) | dimensionless [55,56,57,59] | – | |
| >>>>L2 Health | M | | BIT STRING (1) | dimensionless [55,56,57,59] | – | |
| >>>>L5 Health | M | | BIT STRING (1) | dimensionless [55,56,57,59] | – | |
| >*Midi Keplerian Parameters* | | | | Model 4 | | |
| >> Keplerian Midi Almanac | M | | | | YES | ignore |
| >>>$T_{oa}$ | M | | INTEGER(0..255) | Scaling factor $2^{12}$ s Reference time of almanac within week in GANSS TOD time | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | base | | |
| >>>**Satellite information MIDI-KP** | | 1..<maxGANSSSatAlmanac> | | | – | |
| >>>>Sat ID | M | | INTEGER (0..63) | Defined in [16]. | – | |
| >>>>e | M | | BIT STRING(11) | dimensionless [55,56,57,59] | – | |
| >>>>$\delta_i$ | M | | BIT STRING (11) | semi-circles [55,56,57,59] | – | |
| >>>>$\Omega$_dot | M | | BIT STRING (11) | semi-circles/sec [55,56,57,59] | – | |
| >>>>sqrtA | M | | BIT STRING (17) | meters$^{1/2}$ [55,56,57,59] | – | |
| >>>>$\Omega_0$ | M | | BIT STRING (16) | semi-circles [55,56,57,59] | – | |
| >>>>$\omega$ | M | | BIT STRING (16) | semi-circles [55,56,57,59] | – | |
| >>>>$M_0$ | M | | BIT STRING (16) | semi-circles [55,56,57,59] | – | |
| >>>>$a_{fo}$ | M | | BIT STRING (11) | seconds [55,56,57,59] | – | |
| >>>>$a_{f1}$ | M | | BIT STRING (10) | sec/sec [55,56,57,59] | – | |
| >>>>L1 Health | M | | BIT STRING (1) | Dimensionless [55,56,57,59] | – | |
| >>>>L2 Health | M | | BIT STRING (1) | dimensionless [55,56,57,59] | – | |
| >>>>L5 Health | M | | BIT STRING (1) | dimensionless [55,56,57,59] | – | |
| >*GLONASS Keplerian Parameters* | | | | Model 5 | | |
| >> Keplerian GLONASS | M | | | | YES | ignore |
| **>>>Satellite information GLO-KP** | | 1..<maxGANSSSatAlmanac> | | | – | |
| >>>>$N^A$ | M | | BIT STRING(11) | days [60] | – | |
| >>>>$n^A$ | M | | BIT STRING (5) | dimensionless [60] | – | |
| >>>>$H_n{}^A$ | M | | BIT STRING (5) | dimensionless [60] | – | |
| >>>>$\lambda_n{}^A$ | M | | BIT STRING (21) | semi-circles [60] | – | |
| >>>>$t_{\lambda n}{}^A$ | M | | BIT STRING (21) | seconds [60] | – | |
| >>>>$\Delta i_n{}^A$ | M | | BIT STRING (18) | semi-circles [60] | – | |
| >>>>$\Delta T_n{}^A$ | M | | BIT STRING (22) | sec/orbit period [60] | – | |
| >>>>$\Delta T_DOT_n{}^A$ | M | | BIT STRING (7) | sec/orbit period$^2$ [60] | – | |
| >>>>$\varepsilon_n{}^A$ | M | | BIT STRING (15) | dimensionless [60] | – | |
| >>>>$\omega_n{}^A$ | M | | BIT STRING (16) | semi-circles [60] | – | |
| >>>>$\tau_n{}^A$ | M | | BIT STRING (10) | seconds [60] | – | |
| >>>>I | M | | BIT STRING (1) | dimensionless [60] | – | |
| >>>>$M_n{}^A$ | O | | BIT STRING (2) | dimensionless [60] | – | |
| >*SBAS ECEF Parameters* | | | | Model 6 | | |
| >> ECEF SBAS Almanac | M | | | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>**Satellite information SBAS-ECEF** | | 1.. <maxGANSSSatAlmanac> | | | – | |
| >>>>Data ID | M | | BIT STRING(2) | Dimensionless [58] | – | |
| >>>>SV ID | M | | INTEGER (0..63) | Defined in [16]. | – | |
| >>>>Health | M | | BIT STRING (8) | Dimensionless [58] | – | |
| >>>>$X_G$ | M | | BIT STRING (15) | meters [58] | – | |
| >>>>$Y_G$ | M | | BIT STRING (15) | meters [58] | – | |
| >>>>$Z_G$ | M | | BIT STRING (9) | meters [58] | – | |
| >>>>$X_G$ Rate-of-Change | M | | BIT STRING (3) | meters/sec [58] | – | |
| >>>>$Y_G$ Rate-of-Change | M | | BIT STRING (3) | meters/sec [58] | – | |
| >>>>$Z_G$ Rate-of-Change | M | | BIT STRING (4) | meters/sec [58] | – | |
| >>>>$t_0$ | M | | BIT STRING (11) | seconds [58] | – | |

| Range Bound | Explanation |
|---|---|
| *maxGANSSSatAlmanac* | Maximum number of satellites for which data is included in the IE |

## 9.2.1.104 GANSS Clock Model

The IE contains fields needed to model the GANSS clock parameters.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| **Satellite Clock Model** | | *1 to <maxGANSSClockMod>* | | Model -1<br>There may be more than one clock model included if defined in SIS ICD (e.g. two for Galileo) |
| >$t_{oc}$ | M | | BIT STRING(14) | defined in [53] |
| >$a_{i2}$ | M | | BIT STRING(12) | defined in [53] |
| >$a_{i1}$ | M | | BIT STRING(18) | defined in [53] |
| >$a_{i0}$ | M | | BIT STRING(28) | defined in [53] |
| >$T_{GD}$ | O | | BIT STRING(10) | defined in [53] |
| >Model ID | O | | INTEGER(0..1) | Coded as defined in [16]. |

| Range bound | Explanation |
|---|---|
| *maxGANSSClockMod* | Maximum number of satellite clock models for which data is included in the IE. |

## 9.2.1.104a GANSS Additional Clock Models

The IE contains fields needed to model the GANSS clock parameters.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| CHOICE *Additional Clock Models* | | | | |
| *>NAV-Clock Model* | | | | Model-2 |
| >>$t_{oc}$ | M | | BIT STRING(16) | Time of clock (seconds) [59] |
| >>$af_2$ | M | | BIT STRING (8) | Clock correction polynomial coefficient (sec/sec$^2$) [59] |
| >>$af_1$ | M | | BIT STRING (16) | Clock correction polynomial coefficient (sec/sec) [59] |
| >>$af_0$ | M | | BIT STRING (22) | Clock correction polynomial coefficient (seconds) [59] |
| >>$T_{GD}$ | M | | BIT STRING (8) | Group delay (seconds) [59] |
| *>CNAV/CNAV-2 Clock Model* | | | | Model-3 |
| >>$t_{oc}$ | M | | BIT STRING (11) | Clock data reference time of week (seconds) [55, 56, 57, 59] |
| >>$t_{op}$ | M | | BIT STRING (11) | Clock data predict time of week (seconds) [55, 56, 57, 59] |
| >>$URA_{oc}$ Index | M | | BIT STRING (5) | SV clock accuracy index (dimensionless) [55, 56, 57, 59] |
| >>$URA_{oc1}$ Index | M | | BIT STRING (3) | SV clock accuracy change index (dimensionless) [55, 56, 57, 59] |
| >>$URA_{oc2}$ Index | M | | BIT STRING (3) | SV clock accuracy change rate index (dimensionless) [55, 56, 57, 59] |
| >>$a_{f2-n}$ | M | | BIT STRING (10) | SV clock drift rate correction coefficient (sec/sec$^2$) [55, 56, 57, 59] |
| >>$a_{f1-n}$ | M | | BIT STRING (20) | SV clock drift correction coefficient (sec/sec) [55, 56, 57, 59] |
| >>$a_{f0-n}$ | M | | BIT STRING (26) | SV clock bias correction coefficient (seconds) [55, 56, 57, 59] |
| >>$T_{GD}$ | M | | BIT STRING (13) | Group delay correction (seconds) [55, 56, 57, 59] |
| >>$ISC_{L1CP}$ | O | | BIT STRING (13) | Inter signal group delay correction (seconds) [57, 59] |
| >>$ISC_{L1CD}$ | O | | BIT STRING (13) | Inter signal group delay correction (seconds) [57, 59] |
| >>$ISC_{L1C/A}$ | O | | BIT STRING (13) | Inter signal group delay correction (seconds) [55, 56, 59] |
| >>$ISC_{L2C}$ | O | | BIT STRING (13) | Inter signal group delay correction (seconds) [55, 56, 59] |
| >>$ISC_{L5I5}$ | O | | BIT STRING (13) | Inter signal group delay correction (seconds) [56, 59] |
| >>$ISC_{L5Q5}$ | O | | BIT STRING (13) | Inter signal group delay correction (seconds) [56, 59] |
| *>GLONASS Satellite Clock Model* | | | | Model-4 |

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| >$\tau_n(t_b)$ | M | | BIT STRING (22) | Satellite clock offset (seconds) [60] |
| >$\gamma_n(t_b)$ | M | | BIT STRING (11) | Relative frequency offset from nominal value (dimensionless) [60] |
| >$\Delta\tau_n$ | O | | BIT STRING (5) | Time difference between transmission in G2 and G1 (seconds) [60] |
| *>SBAS Satellite Clock Model* | | | | Model-5 |
| >$t_0$ | M | | BIT STRING (13) | (seconds) [58] |
| >$a_{Gfo}$ | M | | BIT STRING (12) | (seconds) [58] |
| >$a_{Gf1}$ | M | | BIT STRING (8) | (sec/sec) [58] |

### 9.2.1.105 GANSS Ionospheric Model

The IE contains fields needed to model the propagation delays of the GANSS signals through the ionosphere.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| $a_{i0}$ | M | | BIT STRING(12) | This parameter is used as defined in [53] |
| $a_{i1}$ | M | | BIT STRING(12) | This parameter is used as defined in [53] |
| $a_{i2}$ | M | | BIT STRING(12) | This parameter is used as defined in [53] |
| **GANSS Ionosphere Regional Storm Flags** | | 0..1 | | |
| >Storm Flag 1 | M | | BOOLEAN | This parameter is used as defined in [53] |
| >Storm Flag 2 | M | | BOOLEAN | This parameter is used as defined in [53] |
| >Storm Flag 3 | M | | BOOLEAN | This parameter is used as defined in [53] |
| >Storm Flag 4 | M | | BOOLEAN | This parameter is used as defined in [53] |
| >Storm Flag 5 | M | | BOOLEAN | This parameter is used as defined in [53] |

### 9.2.1.105a GANSS Additional Ionospheric Model

The IE contains fields needed to model the propagation delays of the GANSS signals through the ionosphere.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| Data ID | M | | BIT STRING(2) | Coded as defined in [16] |
| $\alpha_0$ | M | | BIT STRING (8) | seconds [59] |
| $\alpha_1$ | M | | BIT STRING (8) | sec/semi-circle [59] |
| $\alpha_2$ | M | | BIT STRING (8) | sec/(semi-circle)$^2$ [59] |
| $\alpha_3$ | M | | BIT STRING (8) | sec/(semi-circle)$^3$ [59] |
| $\beta_0$ | M | | BIT STRING (8) | seconds [59] |
| $\beta_1$ | M | | BIT STRING (8) | sec/semi-circle [59] |
| $\beta_2$ | M | | BIT STRING (8) | sec/(semi-circle)$^2$ [59] |
| $\beta_3$ | M | | BIT STRING (8) | sec/(semi-circle)$^3$ [59] |

### 9.2.1.106 GANSS Navigation Model

Void.

### 9.2.1.107 GANSS Orbit Model

This IE contains information for GANSS orbit model parameters.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| CHOICE *Orbit Model* | M | | | |
| >*Keplerian Parameters* | | | | Model-1 |
| >>$t_{oe}$ | M | | BIT STRING(14) | Time-of-Ephemeris in seconds, scale factor 60 [53] |
| >>$\omega$ | M | | BIT STRING(32) | Argument of Perigee (semi-circles) [53] |
| >>$\Delta n$ | M | | BIT STRING(16) | Mean Motion Difference From Computed Value (semi-circles/sec) [53] |
| >>$M_0$ | M | | BIT STRING(32) | Mean Anomaly at Reference Time (semi-circles) [53] |
| >>OMEGAdot | M | | BIT STRING(24) | Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles/sec) [53] |
| >>e | M | | BIT STRING(32) | Eccentricity, scale factor $2^{-33}$ [53] |
| >>Idot | M | | BIT STRING(14) | Rate of Inclination Angle (semi-circles/sec) [53] |
| >>sqrtA | M | | BIT STRING(32) | Least significant bits of Semi-Major Axis in (meters)$^{1/2}$ , scale factor $2^{-19}$ [53] |
| >>$i_0$ | M | | BIT STRING (32) | Inclination Angle at Reference Time (semi-circles) [53] |
| >>$OMEGA_0$ | M | | BIT STRING(32) | Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles) [53] |
| >>$C_{rs}$ | M | | BIT STRING(16) | Amplitude of the Sine Harmonic Correction Term to the Orbit Radius (meters) [53] |
| >>$C_{is}$ | M | | BIT STRING(16) | Amplitude of the Sine Harmonic Correction Term To The Angle Of Inclination (radians) [53] |

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| >>$C_{us}$ | M | | BIT STRING(16) | Amplitude of the Sine Harmonic Correction Term To The Argument Of Latitude (radians) [53] |
| >>$C_{rc}$ | M | | BIT STRING(16) | Amplitude of the Cosine Harmonic Correction Term to the Orbit Radius (meters) [53] |
| >>$C_{ic}$ | M | | BIT STRING(16) | Amplitude of the Cosine Harmonic Correction Term To The Angle Of Inclination (radians) [53] |
| >>$C_{uc}$ | M | | BIT STRING(16) | Amplitude of the Cosine Harmonic Correction Term To The Argument Of Latitude (radians) [53] |

## 9.2.1.107a GANSS Additional Orbit Models

This IE contains information for GANSS orbit model parameters.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| CHOICE *Additional Orbit Models* | | | | |
| *>NAV-Keplerian Parameters* | | | | Model-2 |
| >>URA Index | M | | BIT STRING(4) | SV accuracy (dimensionless) [59] |
| >>Fit Interval Flag | M | | BIT STRING (1) | Fit interval indication (dimensionless) [59] |
| >>$t_{oe}$ | M | | BIT STRING(16) | Time of ephemeris (seconds) [59] |
| >>$\omega$ | M | | BIT STRING (32) | Argument of perigee (semi-circles) [59] |
| >>$\Delta n$ | M | | BIT STRING (16) | Mean motion difference from computed value (semi-circles/sec) [59] |
| >>$M_0$ | M | | BIT STRING (32) | Mean anomaly at reference time (semi-circles) [59] |
| >>OMEGAdot | M | | BIT STRING (24) | Rate of right ascension (semi-circles/sec) [59] |
| >>e | M | | BIT STRING (32) | Eccentricity (dimensionless) [59] |
| >>Idot | M | | BIT STRING (14) | Rate of inclination angle (semi-circles/sec) [59] |
| >>sqrtA | M | | BIT STRING (32) | Square root of semi-major axis (meters$^{1/2}$) [59] |
| >>$i_0$ | M | | BIT STRING (32) | Inclination angle at reference time (semi-circles) [59] |
| >>$OMEGA_0$ | M | | BIT STRING (32) | Longitude of ascending node of orbit plane at weekly epoch (semi-circles) [59] |
| >>$C_{rs}$ | M | | BIT STRING (16) | Amplitude of sine harmonic correction term to the orbit radius (meters) [59] |
| >>$C_{is}$ | M | | BIT STRING (16) | Amplitude of sine harmonic correction term to the angle of inclination (radians) [59] |

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| >>$C_{us}$ | M | | BIT STRING (16) | Amplitude of sine harmonic correction term to the argument of latitude (radians) [59] |
| >>$C_{rc}$ | M | | BIT STRING (16) | Amplitude of cosine harmonic correction term to the orbit radius (meters) [59] |
| >>$C_{ic}$ | M | | BIT STRING (16) | Amplitude of cosine harmonic correction term to the angle of inclination (radians) [59] |
| >>$C_{uc}$ | M | | BIT STRING (16) | Amplitude of cosine harmonic correction term to the argument of latitude (radians) [59] |

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| *>CNAV/CNAV-2 Keplerian Parameters* | | | | Model-3 |
| >>$t_{op}$ | M | | BIT STRING (11) | Data predict time of week (seconds) [55,56,57,59] |
| >>$URA_{oe}$ Index | M | | BIT STRING (5) | SV accuracy (dimensionless) [55,56,57,59] |
| >>$\Delta A$ | M | | BIT STRING (26) | Semi-major axis difference at reference time (meters) [55,56,57,59] |
| >>A_dot | M | | BIT STRING (25) | Chane rate in semi-major axis (meters/sec) [55,56,57,59] |
| >>$\Delta n_0$ | M | | BIT STRING (17) | Mean motion difference from computed value at reference time (semi-circles/sec) [55,56,57,59] |
| >>$\Delta n_0$_dot | M | | BIT STRING (23) | Rate of mean motion difference from computed value (semi-circles/sec$^2$) [55,56,57,59] |
| >>$M_{0-n}$ | M | | Bit String(33) | Mean anomaly at reference time (semi-circles) [55,56,57,59] |
| >>$e_n$ | M | | BIT STRING (33) | Eccentricity (dimensionless) [55,56,57,59] |
| >>$\omega_n$ | M | | Bit String(33) | Argument of perigee (semi-circles) [55,56,57,59] |
| >>$\Omega_{0-n}$ | M | | BIT STRING (33) | Reference right ascension angle (semi-circles) [55,56,57,59] |
| >>$\Delta\Omega$_dot | M | | BIT STRING (17) | Rate of right ascension difference (semi-circles/sec) [55,56,57,59] |
| >>$i_{o-n}$ | M | | BIT STRING (33) | Inclination angle at reference time (semi-circles) [55,56,57,59] |
| >>$I_{0-n}$_dot | M | | BIT STRING (15) | Rate of inclination angle (semi-circles/sec) [55,56,57,59] |
| >>$C_{is-n}$ | M | | BIT STRING (16) | Amplitude of sine harmonic correction term to the angle of inclination (radians) [55,56,57,59] |
| >>$C_{ic-n}$ | M | | BIT STRING (16) | Amplitude of cosine harmonic correction term to the angle of inclination (radians) [55,56,57,59] |
| >>$C_{rs-n}$ | M | | BIT STRING (24) | Amplitude of sine harmonic correction term to the orbit radius (meters) [55,56,57,59] |
| >>$C_{rc-n}$ | M | | BIT STRING (24) | Amplitude of cosine harmonic correction term to the orbit radius (meters) [55,56,57,59] |
| >>$C_{us-n}$ | M | | BIT STRING (21) | Amplitude of sine harmonic correction term to the argument of latitude (radians) [55,56,57,59] |
| >>$C_{uc-n}$ | M | | BIT STRING (21) | Amplitude of cosine harmonic correction term to the argument of latitude (radians) [55,56,57,59] |

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| *>GLONASS Earth-Centered, Earth-fixed Parameters* | | | | Model-4 |
| >>$E_n$ | M | | BIT STRING (5) | Age of data (days) [60] |
| >>P1 | M | | BIT STRING (2) | Time interval between two adjacent values of $t_b$ (minutes) [60] |
| >>P2 | M | | BIT STRING (1) | Change of $t_b$ flag (dimensionless) [60] |
| >>M | O | | BIT STRING (2) | Type of satellite (dimensionless) [60] |
| >> $x_n(t_b)$ | M | | BIT STRING (27) | x-coordinate of satellite at time $t_b$ (kilometers) [60] |
| >> $\dot{x}_n(t_b)$ | M | | BIT STRING (24) | x-coordinate of satellite velocity at time $t_b$ (kilometers/sec) [60] |
| >> $\ddot{x}_n(t_b)$ | M | | BIT STRING (5) | x-coordinate of satellite acceleration at time $t_b$ (kilometers/sec$^2$) [60] |
| >> $y_n(t_b)$ | M | | BIT STRING (27) | y-coordinate of satellite at time $t_b$ (kilometers) [60] |
| >> $\dot{y}_n(t_b)$ | M | | BIT STRING (24) | y-coordinate of satellite velocity at time $t_b$ (kilometers/sec) [60] |
| >> $\ddot{y}_n(t_b)$ | M | | BIT STRING (5) | y-coordinate of satellite acceleration at time $t_b$ (kilometers/sec$^2$) [60] |
| >> $z_n(t_b)$ | M | | BIT STRING (27) | z-coordinate of satellite at time $t_b$ (kilometers) [60] |
| >> $\dot{z}_n(t_b)$ | M | | BIT STRING (24) | z-coordinate of satellite velocity at time $t_b$ (kilometers/sec) [60] |
| >> $\ddot{z}_n(t_b)$ | M | | BIT STRING (5) | z-coordinate of satellite acceleration at time $t_b$ (kilometers/sec$^2$) [60] |
| *>SBAS Earth-Centered, Earth-fixed Parameters* | | | | Model-5 |
| >>$t_0$ | *C-ClockModel* | | BIT STRING (13) | Time of applicability (seconds) [58] |
| >>Accuracy | M | | BIT STRING (4) | (dimensionless) [58] |
| >>$X_G$ | M | | BIT STRING (30) | (meters) [58] |
| >>$Y_G$ | M | | BIT STRING (30) | (meters) [58] |
| >>$Z_G$ | M | | BIT STRING (25) | (meters) [58] |
| >>$X_G$ Rate-of-Change | M | | BIT STRING (17) | (meters/sec) [58] |
| >>$Y_G$ Rate-of-Change | M | | BIT STRING (17) | (meters/sec) [58] |
| >>$Z_G$ Rate-of-Change | M | | BIT STRING (18) | (meters/sec) [58] |
| >>$X_G$ Acceleration | M | | BIT STRING (10) | (meters/sec$^2$) [58] |
| >>$Y_G$ Acceleration | M | | BIT STRING (10) | meters/sec$^2$) [58] |
| >>$Z_G$ Acceleration | M | | BIT STRING (10) | meters/sec$^2$) [58] |

| Condition | Explanation |
|---|---|
| *ClockModel* | This IE shall be present if "SBAS Earth-Centered, Earth-fixed Parameters" (Model-5) in IE *GANSS Additional Clock Models* is not included in *GANSS Additional Navigation Models* IE. |

### 9.2.1.108 GANSS Real Time Integrity

This IE contains parameters that describe the real-time status of the GANSS constellation.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| **Satellite Information** | | *1 to <maxGANSSSat>* | | |
| >Bad GANSS Sat ID | M | | INTEGER(0..63) | Defined in [16]. |
| >Bad GANSS Signal ID | O | | BIT STRING(8) | Coded as defined in [16]. |

| Range Bound | Explanation |
|---|---|
| *maxGANSSSat* | Maximum number of satellites for which data is included in the IE |

### 9.2.1.109 GANSS Receiver Geographical Position (GANSS RX Pos)

The *GANSS Receiver Geographical Position* IE is used to identify the geographical coordinates of a GANSS receiver relevant for a certain Information Exchange Object.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Latitude Sign | M | | ENUMERATED ( North, South) | |
| Degrees of Latitude | M | | INTEGER (0..$2^{31}$-1) | The IE value (N) is derived by this formula:<br>$N \leq 2^{31} X /90 < N+1$<br>X being the latitude in degree (0°.. 90°) |
| Degrees of Longitude | M | | INTEGER ($-2^{31}$..$2^{31}$-1) | The IE value (N) is derived by this formula:<br>$N \leq 2^{32} X /360 < N+1$<br>X being the longitude in degree (-180°..+180°) |
| Direction of Altitude | M | | ENUMERATED ( Height, Depth) | |
| Altitude | M | | INTEGER (0..$2^{15}$-1) | The relation between the value (N) and the altitude (a) in meters it describes is $N \leq a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all greater values of (a). |

### 9.2.1.110 GANSS Time Model

The *GANSS Time Model* IE contains a set of parameters needed to relate GANSS time to selected time reference indicated by GNSS_TO_ID.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| GANSS Time Model Reference Time | M | | INTEGER(0. .37799) | GANSS reference time (modulo 1 week) in seconds. The scale factor is $2^4$ |
| $T_{A0}$ | M | | INTEGER(-2147483648. .2147483647 ) | Seconds, scale factor $2^{-35}$ |
| $T_{A1}$ | O | | INTEGER (-8388608..8388607) | sec/sec, scale factor $2^{-51}$ |
| $T_{A2}$ | O | | INTEGER (-64..63) | sec/sec$^2$ , scale factor $2^{-68}$ |
| GNSS_TO_ID | M | | ENUMERATED(GPS,… , Galileo, QZSS, GLONASS) | |
| Week Number | O | | INTEGER(0. .8191) | Reference week of GANSS Time Model |

## 9.2.1.110a GANSS Additional Time Models

The *GANSS Additional Time Models* IE contains a set of parameters needed to relate GANSS time to selected time references.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| **GNSS-GNSS Time Model** | | 1..<maxGANSS-1> | | |
| >GANSS Time Model | | | 9.2.1.110 | |

| Range Bound | Explanation |
|---|---|
| maxGANSS-1 | Maximum number of GANSS systems for which data is included in this IE. |

## 9.2.1.111 GANSS UTC Model

The *GANSS UTC Model* IE contains a set of parameters needed to relate GANSS time to Universal Time Coordinate (UTC).

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| $A_1$ | M | | BIT STRING(24) | sec/sec [53] |
| $A_0$ | M | | BIT STRING(32) | seconds [53] |
| $t_{ot}$ | M | | BIT STRING(8) | seconds [53] |
| $WN_t$ | M | | BIT STRING(8) | weeks [53] |
| $\Delta t_{LS}$ | M | | BIT STRING(8) | seconds [53] |
| $WN_{LSF}$ | M | | BIT STRING(8) | weeks [53] |
| DN | M | | BIT STRING(8) | days [53] |
| $\Delta t_{LSF}$ | M | | BIT STRING(8) | seconds [53] |

### 9.2.1.111a GANSS Additional UTC Models

The *GANSS Additional UTC Models* IE contains several sets of parameters needed to relate GANSS time to Universal Time Coordinate (UTC), as defined in [55,56,57,58,59,60].

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| CHOICE *Additional UTC Models* | | | | |
| >*Model Set 1* | | | | |
| >$A_{0-n}$ | M | | BIT STRING(16) | Bias coefficient of GNSS time scale relative to UTC time scale (seconds) [55,56,57,59] |
| >$A_{1-n}$ | M | | BIT STRING (13) | Drift coefficient of GNSS time scale relative to UTC time scale (sec/sec) [55,56,57,59] |
| >$A_{2-n}$ | M | | BIT STRING (7) | Drift rate correction coefficient of GNSS time scale relative to UTC time scale ($sec/sec^2$) [55,56,57,59] |
| >$\Delta t_{LS}$ | M | | BIT STRING (8) | Current or past leap second count (seconds) [55,56,57,59] |
| >$t_{ot}$ | M | | BIT STRING (16) | Time data reference time of week (seconds) [55,56,57,59] |
| >$WN_{ot}$ | M | | BIT STRING (13) | Time data reference week number (weeks) [55,56,57,59] |
| >$WN_{LSF}$ | M | | BIT STRING (8) | Leap second reference week number (weeks) [55,56,57,59] |
| >DN | M | | BIT STRING (4) | Leap second reference day number (days) [55,56,57,59] |
| >$\Delta t_{LSF}$ | M | | BIT STRING (8) | Current or future leap second count (seconds) [55,56,57,59] |
| >*Model Set 2* | | | | |
| >$N^A$ | M | | BIT STRING (11) | Callendar day number within four-year period beginning since the leap year (days) [60] |
| >$\tau_c$ | M | | BIT STRING (32) | GLONASS time scale correction to UTC(SU) (seconds) [60] |
| >Delta UT1 | O | | | |
| >>B1 | M | | BIT STRING (11) | Coefficient to determine ΔUT1 (seconds) [60] |
| >>B2 | M | | BIT STRING (10) | Coefficient to determine ΔUT1 (seconds/msd) [60] |
| >KP | O | | BIT STRING (2) | Notification of expected leap second correction (dimensionless) [60] |
| >*Model Set 3* | | | | |
| >$A_{1WNT}$ | M | | BIT STRING (24) | sec/sec ([58], Message Type 12) |
| >$A_{0WNT}$ | M | | BIT STRING (32) | seconds ([58], Message Type 12) |
| >$t_{ot}$ | M | | BIT STRING (8) | seconds ([58], Message Type 12) |
| >$WN_t$ | M | | BIT STRING (8) | weeks ([58], Message Type 12) |
| >$\Delta t_{LS}$ | M | | BIT STRING (8) | seconds ([58], Message Type 12) |
| >$WN_{LSF}$ | M | | BIT STRING (8) | weeks ([58], Message Type 12) |
| >DN | M | | BIT STRING (8) | days ([58], Message Type 12) |
| >$\Delta t_{LSF}$ | M | | BIT STRING (8) | seconds ([58], Message Type 12) |

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| >UTC Standard ID | M | | BIT STRING (3) | dimensionless<br>Coded as defined in [16] |

### 9.2.1.112 $T_{UTRAN-GANSS}$ Accuracy Class

The *$T_{UTRAN-GANSS}$ Accuracy Class* IE indicates the accuracy class of the UTRAN GANSS Timing of Cell Frames for UE Positioning measurement.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $T_{UTRAN-GANSS}$ Accuracy Class | | | ENUMERATED (Accuracy Class A, Accuracy Class B, Accuracy Class C,…) | More information about Measurement Accuracy Class is included in [23]. |

### 9.2.1.113 $T_{UTRAN-GANSS}$ Measurement Threshold Information

The *$T_{UTRAN-GANSS}$ Measurement Threshold Information* IE defines the related thresholds for UTRAN GANSS Timing of Cell Frames for UE Positioning measurements shall trigger the Event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $T_{UTRAN-GANSS}$ Change Limit | O | | INTEGER(1..256) | Change of $T_{UTRAN-GANSS}$ value compared to previously reported value, which shall trigger a new report.<br>Unit in 1/16 chip. |
| Predicted $T_{UTRAN-GANSS}$ Deviation Limit | O | | INTEGER(1..256) | Deviation of the Predicted $T_{UTRAN-GANSS}$ from the latest measurement result, which shall trigger a new report.<br>Unit in 1/16 chip. |

### 9.2.1.114 $T_{UTRAN-GANSS}$ Measurement Value Information

The $T_{UTRAN-GANSS}$ *Measurement Value Information* IE indicates the measurement results related to the UTRAN GANSS Timing of Cell Frames for UE Positioning measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **$T_{UTRAN-GANSS}$** | M | | | Indicates the UTRAN GANSS Timing of Cell Frames for UE Positioning. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999. | – | |
| >MS | M | | INTEGER(0..16383) | Most Significant Part | – | |
| >LS | M | | INTEGER(0..4294967295) | Least Significant Part | – | |
| $T_{UTRAN-GANSS}$ Quality | O | | INTEGER(0..255) | Indicates the standard deviation (std) of the $T_{UTRAN-GANSS}$ measurements in 1/16 chip. $T_{UTRAN-GANSS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GANSS}$ Value, where x is the reported $T_{UTRAN-GANSS}$ Value and $\mu = E[x]$ is the expectation value of x. | – | |
| $T_{UTRAN-GANSS}$ Drift Rate | M | | INTEGER(-50..50) | Indicates the $T_{UTRAN-GANSS}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GANSS clock. | – | |
| $T_{UTRAN-GANSS}$ Drift Rate Quality | O | | INTEGER(0..50) | Indicates the standard deviation (std) of the $T_{UTRAN-GANSS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GANSS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GANSS}$ Drift Rate, where x is the reported $T_{UTRAN-}$ | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | $_{GANSS}$ Drift Rate and μ = E[x] is the expectation value of x. | | |
| GANSS Time ID | O | | 9.2.1.119a | Absence of this IE means Galileo system time. | YES | ignore |

### 9.2.1.115 GANSS Reference Time

Void.

### 9.2.1.116 HARQ Memory Partitioning

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *HARQ Memory Partitioning* | | *1* | | | – | |
| >*Implicit* | | | | | – | |
| >>Number of Processes | M | | INTEGER (1..8,...12,14,16) | For HARQ process IDs going from 0 to "Number of Processes" – 1 the Total number of soft channel bits [42] is partitioned equally between all HARQ processes according to the rules in [16]. | – | |
| >*Explicit* | | | | | – | |
| **>>HARQ Memory Partitioning I** | | *1..<maxnoofHARQprocesses>* | | The first instance of the parameter corresponds to HARQ process with identifier 0, the second instance to HARQ process with identifier 1, and so on. | – | |
| >>>Process Memory Size | M | | 9.2.1.49D | See [16] | – | |
| **>>HARQ Memory Partitioning Information Extension For MIMO** | | *0, 4, 6 or 8* | | FDD and 1.28Mcps TDD only<br>The 1st instance corresponds to HARQ process with identifier set to "maxnoofHARQprocesses", the 2nd instance to HARQ process with identifier set to "maxnoofHARQprocesses+1", and so on. | GLOBAL | ignore |
| >>>Process Memory Size | M | | 9.2.1.49D | See [16] | – | |

| Range Bound | Explanation |
|---|---|
| *MaxnoofHARQprocesses* | Maximum number of HARQ processes for one UE [FDD – per stream (the maximum number of HARQ processes per UE is 2 * *MaxnoofHARQprocesses* in dual stream transmission mode)] |

### 9.2.1.117 Multiple PLMN List

This information element contains a list of PLMN identities, which identifies the broadcasted PLMN Identities in MOCN and GWCN shared network configurations. The mandatory PLMN Identity in the MIB (called common PLMN in [54]) is the first PLMN.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| PLMN Identity | M | | OCTET STRING (SIZE (3)) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br><br>-The PLMN identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). |
| **List of PLMNs** | | *0 .. <maxNrOfBroadcastPLMNs>* | | |
| >PLMN Identity | M | | OCTET STRING (SIZE (3)) | - digits 0 to 9, two digits per octet,<br>- each digit encoded 0000 to 1001,<br>- 1111 used as filler<br>- bit 4 to 1 of octet n encoding digit 2n-1<br>- bit 8 to 5 of octet n encoding digit 2n<br><br>-The PLMN identity consists of 3 digits from MCC followed by either<br>-a filler plus 2 digits from MNC (in case of 2 digit MNC) or<br>-3 digits from MNC (in case of a 3 digit MNC). |

| Range bound | Explanation |
|---|---|
| *maxNrOfBroadcastPLMNs* | Maximum number of additional PLMN identitys that can be broadcasted in a cell involved in a MOCN or GWCN Shared Network configuration. The value for maxNrOfBroadcastPLMNs is 5. |

### 9.2.1.118 GANSS Data Bit Assistance

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| GANSS TOD | M | | INTEGER(0..59,…) | Refererence time (modulo 1 minute) of the first bit of the data in *Data Bits* IE, in seconds. |
| **Data Bit Assistance List** | | 1..<*maxGANSSSat*> | | |
| >Sat ID | M | | INTEGER(0..63) | Defined in [16]. |
| **>Data Bit Assistance Sgn List** | | 1..<*maxSgnType*> | | |
| >>GANSS Signal ID | M | | 9.2.1.121 | |
| >>Data Bits | M | | BIT STRING(1..1024) | Raw data bits as transmitted from a specific satellite at the time indicated by GANSS_TOD. See [16]. |

| Range Bound | Explanation |
|---|---|
| *maxGANSSSat* | Maximum number of satellites for which data is included in the IE |
| *maxSgnType* | Maximum number of GANSS signals included in the IE |

## 9.2.1.119 GANSS ID

This IE defines a particular GANSS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| GANSS ID | M | | INTEGER(0..7,…) | Defines the GANSS and is coded as defined in [16]. |

## 9.2.1.119a GANSS Time ID

This IE defines a particular GANSS system time.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| GANSS Time ID | M | | INTEGER(0..7,…) | Defines the GANSS system time for the UTRAN GANSS Timing of Cell Frames for UE Positioning.<br>Coded as defined in [16], subclause 10.3.7.93a. |

## 9.2.1.120 GANSS Navigation Model And Time Recovery

This IE contain information required to manage the transfer of precise navigation data to the GANSS-capable UE.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| GANSS Transmission Time | M | | 9.2.1.122 | GANSS Time when the Navigation model has been retrieved |
| Non-Broadcast Indication | O | | ENUMERATED(true) | If this IE is present, GANSS navigation model is not derived from satellite broadcast. See NOTE 1 |
| **Satellite Information** | | *1 to <maxGANSSSat>* | | |
| >Sat ID | M | | INTEGER(0..63) | Defined in [16]. |
| >SV Health | M | | BIT STRING(5) | Coded as defined in [53] |
| >IOD | M | | BIT STRING(10) | |
| >GANSS Clock Model | M | | 9.2.1.104 | |
| >GANSS Orbit Model | M | | 9.2.1.107 | |
| NOTE 1: The Non-Broadcast Indication allows to inform that the navigation model is not bit-to-bit the one broadcast by the satellite. If it is set to 1, the UE is informed that techniques such as data wiping off applied to the navigation model may not work for instance. | | | | |

| Condition | Explanation |
|---|---|
| *Orbit model* | The IE shall be present if the *GANSS Orbit Model* IE indicates “Keplerian Parameters”. |

| Range bound | Explanation |
|---|---|
| *maxGANSSSat* | Maximum number of satellites for which data is included in the IE. |

## 9.2.1.120a GANSS Additional Navigation Models And Time Recovery

This IE contain information required to manage the transfer of precise navigation data to the GANSS-capable UE.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| GANSS Transmission Time | M | | 9.2.1.122 | GANSS Time when the Navigation model has been retrieved |
| Non-Broadcast Indication | O | | ENUMERATED(true) | If this IE is present, GANSS navigation model is not derived from satellite broadcast. See NOTE 1 in 9.2.1.120. |
| **Satellite Information** | | 1..<maxGANSSSat> | | |
| >Sat ID | M | | INTEGER(0..63) | Defined in [16]. |
| >SV Health | M | | BIT STRING(6) | Coded as defined in [16]. |
| >IOD | M | | BIT STRING(11) | Coded as defined in [16]. |
| >GANSS Additional Clock Models | M | | GANSS I Clock Models 9.2.1.104a | |
| >GANSS Additional Orbit Models | M | | GANSS Additional Orbit Models 9.2.1.107a | |

| Range bound | Explanation |
|---|---|
| maxGANSSSat | Maximum number of satellites for which data is included in this IE. The value of maxGANSSSat is 64 |

### 9.2.1.121 GANSS Signal ID

This IE defines a specific signal within a particular GANSS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| GANSS Signal ID | M | | INTEGER(0..7,…) | Coded as defined in [16]. |

### 9.2.1.122 GANSS Transmission Time

This IE indicates the GANSS Transmission Time.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| GANSS Day | O | | INTEGER(0..8191) | The sequential number of days from the origin of the GNSS system time (indicated by the GANSS_ID given in the *Requested Data Value* IE) modulo 8192 days (about 22 years). |
| GANSS TOD | M | | INTEGER(0..86399) | GANSS Time of Day in seconds |

### 9.2.1.122a GANSS Earth Orientation Parameters

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| $t_{EOP}$ | M | | BIT STRING(16) | EOP data reference time<br><br>(seconds) [55] |
| PM_X | M | | BIT STRING (21) | X-axis polar motion value at reference time<br><br>(arc-seconds) [55] |
| PM_X_dot | M | | BIT STRING (15) | X-axis polar motion drift at reference time<br><br>(arc-seconds/day) [55] |
| PM_Y | M | | BIT STRING (21) | Y-axis polar motion value at reference time<br><br>(arc-seconds) [55] |
| PM_Y_dot | M | | BIT STRING (15) | Y-axis polar motion drift at reference time<br><br>(arc-seconds/day) [55] |
| ΔUT1 | M | | BIT STRING (31) | UT1-UTC difference at reference time<br><br>(seconds) [55] |
| ΔUT1_dot | M | | BIT STRING (19) | Rate of UT1-UTC difference at reference time<br><br>(seconds/day) [55] |

### 9.2.1.122b SBAS ID

This IE defines a specific SBAS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SBAS ID | M | | ENUMERATED(<br>WAAS,<br>EGNOS,<br>MSAS,<br>GAGAN, … ) | |

### 9.2.1.122c GANSS Auxiliary Information

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| CHOICE *GANSS-ID* | | | | |
| >*GANSS-ID-1* | | | | This choice may only be present if GANSS ID indicated "Modernized GPS" |
| >>**Aux Info List** | | 1 .. <maxGANSSSat> | | |
| >>>Sat ID | M | | INTEGER(0..63) | Defined in [16]. |
| >>>Signals Available | M | | BIT STRING(8) | Coded as defined in [16]. |
| >*GANSS-ID-3* | | | | This choice may be present if GANSS ID indicated "GLONASS" |
| >>**Aux Info List** | | 1 .. <maxGANSSSat> | | |
| >>>Sat ID | M | | INTEGER(0..63) | Defined in [16]. |
| >>>Signals Available | M | | BIT STRING(8) | Coded as defined in [16]. |
| >>>Channel Number | M | | INTEGER (-7..13) | This field indicates the GLONASS carrier frequency number of the satellite identified by *Sat ID*, as defined in [60]. |

| Range Bound | Explanation |
|---|---|
| maxGANSSSat | Maximum number of GANSS satellites for which data is included in this IE. |

### 9.2.1.122d Additional Ionospheric Model Request

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Additional Ionospheric Model Request | M | | BIT STRING(2) | Data ID for GANSS Additional Ionospheric Model as defined in [16], subclause 10.3.7.92b. |

### 9.2.1.122e Earth Orientation Parameters Request

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Earth Orientation Parameters Request | M | | BOOLEAN | True means requested. |

### 9.2.1.122f GANSS Additional Navigation Models And Time Recovery Request

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| GANSS Additional Navigation Models And Time Recovery Request | M | | BOOLEAN | True means requested. |

### 9.2.1.122g GANSS Additional UTC Models Request

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| GANSS Additional UTC Models Request | M | | BOOLEAN | True means requested. |

### 9.2.1.122h GANSS Auxiliary Information Request

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| GANSS Auxiliary Information Request | M | | BOOLEAN | True means requested. |

### 9.2.1.123 SixtyfourQAM DL Support Indicator

The *SixtyfourQAM DL Support Indicator* indicates whether the particular cell is capable to support Sixtyfour QAM in DL or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SixtyfourQAM DL Support Indicator | | | ENUMERATED (SixtyfourQAM DL Supported, SixtyfourQAM DL Not Supported) | |

### 9.2.1.124 RANAP Enhanced Relocation Information Request

This parameter is transparent to the RNSAP. The parameter contains information for the Enhanced Relocation procedure as defined in [2].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RANAP Enhanced Relocation Information Request | | | BIT STRING | The content is defined in ref. [2]. |

### 9.2.1.125 RANAP Enhanced Relocation Information Response

This parameter is transparent to the RNSAP. The parameter contains information for the Enhanced Relocation procedure as defined in [2].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RANAP Enhanced Relocation Information Response | | | BIT STRING | The content is defined in ref. [2]. |

### 9.2.1.126 Released CN Domain

The parameter indicates the CD Domain(s) which the RNC shall release the related resource for.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Released CN Domain* | M | | | |
| *>PS Domain* | | | NULL | |
| *>CS Domain* | | | NULL | |
| *>PS and CS Domain* | | | NULL | |

### 9.2.1.127 Secondary CCPCH system information MBMS

The parameter contains information for the Secondary CCPCH system information MBMS as defined in [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Secondary CCPCH system information MBMS | | | BIT STRING | The content is defined in ref. [16]. |

### 9.2.1.128 MBSFN Cluster Identity

The parameter is the identifier of a MBSFN cluster in one PLMN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MBSFN Cluster Identity | | | INTEGER (0..65535) | the identifier of a MBSFN cluster in one PLMN |

### 9.2.1.129 MBSFN Scheduling Transmission Time Interval

The parameter is the identifier of an MBSFN Scheduling Transmission Time Interval.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MBSFN Scheduling Transmission Time Interval | | | INTEGER (4,8,16,32, 64,128,256) | Number of TTIs |

### 9.2.1.130 MAC-ehs Reset Timer

The *MAC-ehs Reset Timer* IE is used as Reset Timer(Treset) described in ref [41] subclause 11.6.4.5.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| MAC-ehs Reset Timer | | | ENUMERATED (1, 2, 3, 4, …) | Timer in multiples of T1 values (milliseconds). Used when MAC-ehs reordering queue is reset in CELL_FACH and CELL_PCH |

### 9.2.1.131 Enhanced FACH Support Indicator

This IE indicates the Enhanced FACH Support. [1.28Mcps TDD – This IE indicates the Enhanced FACH Support in both downlink and uplink.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Enhanced FACH Support Indicator | | | NULL | |

### 9.2.1.132 Enhanced PCH *Capability*

This IE indicates the UE is capable of Enhanced PCH or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Enhanced PCH Capability | | | ENUMERATED (Enhanced PCH Capable, Enhanced PCH Not Capable) | |

### 9.2.1.133 Priority Queue Information for Enhanced FACH/PCH

The *Priority Queue Information for Enhanced FACH/PCH* IE provides information associated to HSDPA Priority Queue used for Enhanced FACH and/or Enhanced PCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Priority Queue Information** | | *1..<maxnoofPrioQueues>* | | |
| >Priority Queue ID | M | | 9.2.1.45A | |
| >Scheduling Priority Indicator | M | | 9.2.1.51A | |
| >T1 | M | | 9.2.1.54A | |
| >MAC-ehs Reset Timer | M | | 9.2.1.130 | |
| >Discard Timer | O | | 9.2.1.19C | |
| >MAC-hs Window Size | M | | 9.2.1.34C | |
| >Maximum MAC-d PDU Size | M | | MAC PDU Size Extended 9.2.1.34D | |

| Range Bound | Explanation |
|---|---|
| *maxnoofPrioQueues* | Maximum number of Priority Queues |

### 9.2.1.134 MIMO Activation Indicator

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MIMO Activation Indicator | M | | NULL | |

### 9.2.1.135 MIMO Mode Indicator

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MIMO Mode Indicator | | | ENUMERATED (Activate, Deactivate) | |

### 9.2.1.136 DL RLC PDU Size Format

The DL *RLC PDU Size Format* IE indicates the downlink RLC PDU size format used for a Priority Queue.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL RLC PDU Size Format | | | ENUMERATED ( Fixed RLC PDU size, Flexible RLC PDU size ,...) | |

### 9.2.1.137 UE Aggregate Maximum Bit Rate

The *UE Aggregate Maximum Bitrate* IE is applicable for all Non-GBR bearers per UE which is defined for the Downlink and the Uplink direction and provided by the CN to the RNC. At least one of the *UE Aggregate Maximum Bit Rate Downlink* IE and *UE Aggregate Maximum Bit Rate Uplink* IE shall be included in the *UE Aggregate Maximum Bit Rate* IE.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| **UE Aggregate Maximum Bit Rate** | | | | **Desc**: Applicable for non-GBR bearers |
| >UE Aggregate Maximum Bit Rate Downlink | O | | INTEGER (1..1,000,000,000) | **Desc**.: This IE indicates the aggregated maximum number of bits delivered by UTRAN and to UTRAN in DL within a period of time, divided by the duration of the period for all non-GBR bearers in one UE. The MBR of non-GBR bearers shall be ignored if this IE present. |
| >UE Aggregate Maximum Bit Rate Uplink | O | | INTEGER (1..1,000,000,000) | **Desc**.: This IE indicates the aggregated maximum number of bits delivered by UTRAN and to UTRAN in UL within a period of time, divided by the duration of the period for all non-GBR bearers in one UE. The MBR of non-GBR bearers shall be ignored if this IE present. |

### 9.2.1.138 DGNSS Validity Period

This IE defines the validity period of the GNSS differential corrections provided in *DGPS corrections* and *DGANSS corrections* IEs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UDRE Growth Rate | M | | Enumerated( UDRE growth 1.5, UDRE growth 2, UDRE growth 4, UDRE growth 6, UDRE growth 8, UDRE growth 10, UDRE growth 12, UDRE growth 16) | This field provides an estimate of the growth rate of uncertainty (1-σ) in the corrections. The UDRE at time value specified in the *Time of Validity for UDRE Growth Rate field* is the value of this field times the value of UDRE provided in *DGPS Corrections* or *DGANSS corrections* IE [4]. |
| Time of Validity for UDRE Growth Rate | M | | Enumerated( val20sec, val40sec, val80sec, val160sec, val320sec, val640sec, val1280sec, val2560sec) | This field specifies the time when the *UDRE Growth Rate* field applies [4]. |

## 9.2.2 FDD Specific Parameters

This subclause contains parameters that are specific to FDD.

### 9.2.2.a ACK-NACK Repetition Factor

The *ACK-NACK Repetition Factor* IE indicates the consecutive repetition of the ACK and NACK.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| ACK-NACK Repetition Factor | | | INTEGER (1..,4,...) | Step: 1 |

### 9.2.2.b ACK Power Offset

The *ACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ ACK information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| ACK Power Offset | | | INTEGER (0..8,…) | According to mapping in ref. [21] subclause 4.2.1. |

### 9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CM Configuration Change CFN | M | | CFN 9.2.1.9 | |
| **Transmission Gap Pattern Sequence Status** | | *0.. <maxTGPS>* | | If the group is not present, none of the pattern sequences are activated. |
| >TGPSI Identifier | M | | INTEGER(1. .<MaxTGPS >) | Establish a reference to the compressed mode pattern sequence. Up to <MaxTGPS> simultaneous compressed mode pattern sequences can be activated. |
| >TGPRC | M | | INTEGER(0. .511) | The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity. |
| >TGCFN | M | | CFN 9.2.1.9 | Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence. |

| Range bound | Explanation |
|---|---|
| *maxTGPS* | Maximum number of active pattern sequences. Value 6. |

### 9.2.2.B Adjustment Period

*Adjustment Period* IE defines the period to be used for power balancing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Adjustment Period | | | INTEGER (1 .. 256) | Unit: Frames |

### 9.2.2.C Adjustment Ratio

*Adjustment Ratio* IE *(Radj)* defines the convergence rate used for the associated Adjustment Period.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Adjustment Ratio | | | INTEGER (0 .. 100) | The Adjustment Ratio is given with a granularity of 0.01<br>0 -> 0.00<br>1 -> 0.01<br>...<br>100 -> 1.00 |

### 9.2.2.Ca Bundling Mode Indicator

The Bundling Mode Indicator indicates whether the bundling shall be done or shall not be done for Iur.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Bundling Mode Indicator | | | ENUMERATED ( Bundling, No bundling) | The value “Bundling” is applicable only when E-TTI indicates “2ms”. |

### 9.2.2.D Cell Capability Container FDD

The Cell Capability Container FDD indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Capability Container FDD | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.<br>The first bit:Reserved.<br>The second bit: Delayed Activation Support Indicator.<br>The third bit: HS-DSCH Support Indicator.<br>The fourth bit:Reserved.<br>The fifth bit: F-DPCH Support Indicator.<br>The sixth bit: E-DCH Support Indicator.<br>The seventh bit: E-DCH TTI2ms Support Indicator.<br>The eighth bit: E-DCH 2sf2and2sf4 and all inferior SFs Support Indicator.<br>The ninth bit: E-DCH 2sf2 and all inferior SFs Support Indicator.<br>The tenth bit: E-DCH 2sf4 and all inferior SFs Support Indicator.<br>The eleventh bit: E-DCH sf4 and all inferior SFs Support Indicator.<br>The twelveth bit: E-DCH sf8 and all inferior SFs Support Indicator.<br>The thirteenth bit: E-DCH HARQ IR Combining Support Indicator.<br>The fourteenth bit: E-DCH HARQ Chase Combining Support Indicator.<br>The fifteenth bit: Continuous Packet Connectivity DTX-DRX Support Indicator.<br>The sixteenth bit: Continuous Packet Connectivity HS-SCCH less Support Indicator.<br>The seventeenth bit: MIMO Support Indicator.<br>The eighteenth bit: SixteenQAM UL Support Indicator.<br>The nineteenth bit: Flexible MAC-d PDU Size Support Indicator.<br>The twentieth bit: F-DPCH Slot Format Support Indicator.<br>The twentyfirst bit: SixtyfourQAM DL Support Indicator.<br>The twentysecond bit: |

| | | | | |
|---|---|---|---|---|
| | | | | Flexible E-DCH MAC-d PDU Size Support Indicator.<br>The twentythird bit: E-DPCCH Power Boosting Support Indicator.<br>The twentytfourth bit: SixtyfourQAM DL and MIMO Combined Support Indicator. This bit shall not be set to 1 if SixtyfourQAM DL Support Indicator is set to 0 or MIMO Support Indicator is set to 0.<br>The twentyfifth bit: Multi Cell Support Indicator<br>The twentysixth bit: MBMS Support Indicator.<br>The twentyseventh bit: TX Diversity on DL Control Channels by MIMO Capable UE when MIMO operation is Active Support Indicator.<br>The twentyeighth bit: Dual Band Support Indicator<br>The twentyninth bit: Single Stream MIMO Support Indicator.<br>The thirtieth bit: Preferred Precoding Weight Set Restriction Support Indicator. (See [16], the value 1 indicates preferred)<br><br>Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. Note that Reserved bits are not considered as a spare bit. They shall however be set to 0 by the transmitter and shall be ignored by the receiver. |

### 9.2.2.E Cell Portion ID

Cell Portion ID is the unique identifier for a cell portion within a cell. See [11].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Portion ID | | | INTEGER (0..63,…) | |

### 9.2.2.1 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip Offset is used as offset for the DL DPCH relative to the Primary CPICH timing for the DL DPCH or for the F-DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Chip Offset | | | INTEGER (0..38399) | Unit: Chips |

### 9.2.2.2 Closed Loop Mode1 Support Indicator

The Closed Loop Mode1 Support Indicator indicates whether the particular cell is capable to support Closed loop mode1 or not

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Closed Loop Mode1 Support Indicator | | | ENUMERATED(Closed loop mode1 Supported, Closed loop mode1 not supported). | |

### 9.2.2.3 Closed Loop Mode2 Support Indicator

Void.

### 9.2.2.3A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Closed Loop Timing Adjustment Mode | | | ENUMERATED(Offset1, Offset2,…) | According to [10] subclause 7.1:<br>Offset1 = slot(j+1)mod15<br>Offset2 = slot(j+2)mod15 |

### 9.2.2.4 Compressed Mode Method

Void

### 9.2.2.4A DCH FDD Information

The *DCH FDD Information* IE provides information for DCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DCH FDD Information** | | *1..<maxnoofDCHs>* | | | – | |
| >Payload CRC Presence Indicator | M | | 9.2.1.42 | | – | |
| >UL FP Mode | M | | 9.2.1.67 | | – | |
| >ToAWS | M | | 9.2.1.58 | | – | |
| >ToAWE | M | | 9.2.1.57 | | – | |
| **>DCH Specific Info** | | *1..<maxnoofDCHs>* | | | – | |
| >>DCH ID | M | | 9.2.1.16 | | – | |
| >>TrCH Source Statistics Descriptor | M | | 9.2.1.65 | | – | |
| >>Transport Format Set | M | | 9.2.1.64 | For the UL. | – | |
| >>Transport Format Set | M | | 9.2.1.64 | For the DL. | – | |
| >>BLER | M | | 9.2.1.4 | For the UL. | – | |
| >>BLER | M | | 9.2.1.4 | For the DL. | – | |
| >>Allocation/Retention Priority | M | | 9.2.1.1 | | – | |
| >>Frame Handling Priority | M | | 9.2.1.29 | | – | |
| >>QE-Selector | M | | 9.2.1.46A | | – | |
| >>DRAC control | M | | 9.2.2.13 | | – | |
| >>Guaranteed Rate Information | O | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >>Unidirectional DCH Indicator | O | | 9.2.1.68B | | YES | reject |
| >TNL QoS | O | | 9.2.1.56A | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |

## 9.2.2.4B E-DCH FDD Information

The E-DCH *FDD Information* IE provides information for an E-DCH to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| E-DCH MAC-d Flows Information | M | | 9.2.2.4MC | | – | |
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | If this IE is not included, scheduled transmission in all HARQ processes is allowed. | – | |
| E-DCH Maximum Bitrate | O | | 9.2.2.4MG | | – | |
| E-DCH Processing Overload Level | O | | 9.2.1.95 | | – | |
| E-DCH Reference Power Offset | O | | 9.2.2.4MI | | – | |
| E-DCH Power Offset for Scheduling Info | O | | 9.2.1.96 | | YES | ignore |
| SixteenQAM UL Operation Indicator | O | | 9.2.2.90 | | YES | reject |
| E-AGCH Table Choice | C-SixteenQAM UL Operation | | 9.2.2.61A | If the SixteenQAM UL operation is not configured for this UE, Table 16B for E-AGCH in [9] shall be used. | YES | ignore |

| Condition | Explanation |
|---|---|
| SixteenQAM UL Operation | The IE shall be present if the *SixteenQAM UL Operation Indicator* IE is set to “Activate”. |

## 9.2.2.4C E-DCH FDD Information Response

The *E-DCH FDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information Response** | | *1..<maxnoofEDCHMACdFlows>* | | | – | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | If only *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE and this IE (*E-DCH MAC-d Flow ID*) are present in the *E-DCH FDD Information Response* IE, the content of this IE shall be considered invalid | – | |
| >Binding ID | O | | 9.2.1.3 | | – | |
| >Transport Layer Address | O | | 9.2.1.62 | | – | |
| >HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | | – | |
| >Transport Bearer Not Setup Indicator | O | | 9.2.2.4T | | YES | ignore |
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows. |

## 9.2.2.4D E-DCH FDD DL Control Channel Information

The *E-DCH FDD DL Control Channel Information* IE provides information for E-DCH specific DL Control Channels to be provided to UE via RRC signalling.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| E-AGCH And E-RGCH/E-HICH FDD Scrambling Code | O | | DL Scrambling Code 9.2.2.11 | Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted. 0= Primary scrambling code of the cell 1…15 = Secondary scrambling code | – | |
| E-AGCH Channelisation Code | O | | FDD DL Channelisation Code Number 9.2.2.14 | | – | |
| Primary E-RNTI | O | | E-RNTI 9.2.1.94 | | – | |
| Secondary E-RNTI | O | | E-RNTI 9.2.1.94 | | – | |
| E-RGCH/E-HICH Channelisation Code | M | | FDD DL Channelisation Code Number 9.2.2.14 | | – | |
| E-RGCH Signature Sequence | O | | INTEGER (0..maxnoofSigSeqERGHICH-1) | | – | |
| E-HICH Signature Sequence | O | | INTEGER (0..maxnoofSigSeqERGHICH-1) | | – | |
| Serving Grant Value | O | | INTEGER (0..37,38) | (0..37) indicates E-DCH serving grant index as defined in [41]; index 38 means zero grant | – | |
| Primary/Secondary Grant Selector | O | | ENUMERATED (Primary, Secondary) | Indicates whether the Serving Grant Value is granted with a primary E-RNTI or a secondary E-RNTI | – | |
| E-RGCH Release Indicator | O | | 9.2.2.60 | | – | |
| E-RGCH and E-HICH Channelisation Code Validity Indicator | O | | 9.2.2.68 | Indicates whether the value of E-RGCH and E-HICH Channelisation Code is invalid | YES | ignore |
| Default Serving Grant in DTX Cycle 2 | O | | INTEGER (0..37,38) | Serving Grant value to be | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | used in DTX-Cycle-2. (0..37) indicates E-DCH serving grant index as defined in [32]; index 38 means zero grant | | |

| Range bound | Explanation |
|---|---|
| maxnoofSigSeqERGHICH | Maximum number Signature Sequences for E-RGCH / E-HICH |

### 9.2.2.4E E-DCH RL Indication

Indicates whether a RL is an E-DCH RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH RL Indication | | | ENUMERATED(E-DCH, non E-DCH) | |

### 9.2.2.4F E-DCH FDD Information To Modify

The E-DCH *FDD Information* IE provides information for an E-DCH to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information** | | *1..<maxnoofEDCHMACdFlows>* | | See Note1 below. | – | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| >TNL QoS | O | | 9.2.1.56A | | – | |
| >Maximum Number of Retransmissions for E-DCH | O | | 9.2.1.100 | | – | |
| >Traffic Class | O | | 9.2.1.58A | | – | |
| >E-DCH HARQ Power Offset FDD | O | | 9.2.2.4L | | – | |
| >E-DCH MAC-d Flow Multiplexing List | O | | 9.2.1.89 | | – | |
| > CHOICE *E-DCH grant type* | O | | | | | |
| *>>E-DCH Non-Scheduled Transmission Grant* | | | | | | |
| >>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission | M | | 9.2.2.4N | If the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is present, this IE shall be ignored. When *Maximum MAC-d PDU Size Extended* IE is configured for an E-DCH Logical Channel this IE indicates the maximum number of bits per MAC-I PDU. | – | |
| >>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission | O | | 9.2.2.4R | When *Maximum MAC-d PDU Size Extended* IE is configured for an E-DCH Logical Channel this IE indicates the extended maximum number of bits per MAC-I PDU. | YES | reject |
| >>*E-DCH Scheduled Transmission Grant* | | | NULL | | | |
| >Bundling Mode Indicator | O | | 9.2.2.Ca | | – | |
| >E-DCH Logical Channel To Add | O | | E-DCH Logical Channel Information 9.2.1.92 | | – | |
| >E-DCH Logical Channel To Modify | | | 9.2.1.93 | | – | |
| **>E-DCH Logical Channel To Delete** | | *0..< maxnooflogicalchannels>* | | | – | |
| >>Logical Channel ID | M | | 9.2.1.97 | | – | |
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | | – | |
| E-DCH Maximum Bitrate | O | | 9.2.2.4MG | | – | |
| E-DCH Processing Overload Level | O | | 9.2.1.95 | | – | |
| E-DCH Reference Power Offset | O | | 9.2.2.4MI | | – | |
| MAC-e Reset Indicator | O | | 9.2.1.99 | | – | |
| E-DCH Power Offset for Scheduling Info | O | | 9.2.1.96 | | YES | ignore |
| SixteenQAM UL Operation Indicator | O | | 9.2.2.90 | | YES | reject |
| E-DCH MAC-d PDU Size Format | O | | 9.2.1.91A | | YES | reject |
| **E-DCH DL Control Channel Grant Information** | | *0..<maxnoofEDCHRLs>* | | | GLOBAL | ignore |
| >E-DCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| E-AGCH Table Choice | C-SixteenQAM UL Operation | | 9.2.2.61A | If sixteenQAM UL operation is not used in the new configuration for this UE, Table 16B for E-AGCH in [9] shall be used in the new configuration. | YES | ignore |
| Note 1: Even if no E-DCH MAC-d Flow Specific Information needs to be modified, one E-DCH MAC-d Flow Information shall be included, which only contains the *E-DCH MAC-d Flow ID* IE and the *Transport BearerRequest Indicator* IE set to “Bearer not Requested”. | | | | | | |

| Condition | Explanation |
|---|---|
| SixteenQAM UL Operation | The IE shall be present if the *SixteenQAM UL Operation Indicator* IE is set to "Activate". |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows. |
| *Maxnooflogicalchannels* | Maximum number of Logical Channels |
| *maxnoofEDCHRLs* | Maximum number of E-DCH RLs for one UE |

### 9.2.2.4G E-DCH Transport Format Combination Set Information (E-TFCS Information)

Whereas the related Transport Block sizes are standardised in [41] this IE gives details on the referenced Transport Block Size Table, the E-DCH Minimum Set E-TFCI, the Reference E-TFCIs and configuration parameters used for the calculation of the gain factors $\beta_{ec}$ and $\beta_{ed}$ defined in [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| E-TFCI Table Index | M | | INTEGER (0..1,..., 2..7) | Indicates which standardised E-TFCS Transport Block Size Table shall be used. The related tables are specified in [41]. | – | |
| E-DCH Minimum Set E-TFCI | M | | INTEGER (0..127) | For the concept of "E-DCH Minimum Set of TFCs" see [41] and [16]. | – | |
| **Reference E-TFCI Information** | | *1..<maxnoofRefETFCIs>* | | | – | |
| >Reference E-TFCI | M | | INTEGER (0..127) | | – | |
| >Reference E-TFCI Power Offset | M | | 9.2.2.4P | If the *Extended Reference E-TFCI Power Offset* IE is present, this IE shall be ignored | – | |
| >Extended Reference E-TFCI Power Offset | O | | 9.2.2.4Q | | YES | reject |
| E-DCH Minimum Set E-TFCI Validity Indicator | O | | 9.2.2.69 | Indicates whether the value of E-DCH Minimum Set E-TFCI is invalid | YES | reject |
| E-TFCI Boost Informatiion | O | | 9.2.2.91 | | YES | reject |
| E-DPDCH Power Interpolation | O | | BOOLEAN | True means that the E-DPDCH power interpolation formula shall be applied, False means that the E-DPDCH power extrapolation formula shall be applied for the computation of the gain factor $\beta_{ed}$ according to [10] | YES | reject |

| Range Bound | Explanation |
|---|---|
| *maxnoofRefETFCIs* | Maximum number of signalled reference E-TFCIs |

### 9.2.2.4J E-TTI

The E-TTI parameter indicates the Transmission Time Interval for E-DPCH operation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-TTI | | | ENUMERATED (2ms, 10ms) | |

### 9.2.2.4K E-DPCCH Power Offset

The E-DPCCH Power Offset is used to calculate the E-DPCCH gain factor $\beta_{ec}$ as defined in [10], whereas $\beta_{ec}$ is related to the power difference between DPCCH and E-DPCCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DPCCH Power Offset | | | INTEGER (0..8) | According to mapping in ref. [21] subclause 4.2.1.3 |

### 9.2.2.4KA Void

### 9.2.2.4L E-DCH HARQ Power Offset FDD

The E-DCH HARQ Power Offset FDD is used to calculate the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH HARQ Power Offset FDD | | | INTEGER (0..6) | According to mapping in ref. [21] subclause 4.2.1.3. |

### 9.2.2.4M Void

### 9.2.2.4MA Void

### 9.2.2.4MB Void

### 9.2.2.4MC E-DCH MAC-d Flows Information

The *E-DCH MAC-d Flows Information* IE is used for the establishment of E-DCH MAC-d flows.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information** | | *1..<maxnoofEDCHMACdFlows>* | | | – | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >TNL QoS | O | | 9.2.1.56A | | – | |
| >Payload CRC Presence Indicator | M | | 9.2.1.42 | | – | |
| >Maximum Number of Retransmissions for E-DCH | M | | 9.2.1.100 | | – | |
| >Traffic Class | M | | 9.2.1.58A | | – | |
| >E-DCH HARQ Power Offset FDD | M | | 9.2.2.4L | | – | |
| >E-DCH MAC-d Flow Multiplexing List | O | | 9.2.1.89 | | – | |
| >CHOICE *E-DCH grant type* | M | | | | – | |
| >>*E-DCH Non-Scheduled Transmission Grant* | | | | | | |
| >>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission | M | | 9.2.2.4N | If the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is present, this IE shall be ignored. When *Maximum MAC-d PDU Size Extended* IE is configured for an E-DCH Logical Channel this IE indicates the maximum number of bits per MAC-I PDU. | – | |
| >>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | If this IE is not included, transmission in all HARQ processes is allowed. | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >>>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission | O | | 9.2.2.4R | When *Maximum MAC-d PDU Size Extended* IE is configured for an E-DCH Logical Channel this IE indicates the extended maximum number of bits per MAC-I PDU. | YES | reject |
| >>*E-DCH Scheduled Transmission Grant* | | | NULL | | | |
| >Bundling Mode Indicator | O | | 9.2.2.Ca | | – | |
| >E-DCH Logical Channel Information | M | | 9.2.1.92 | | – | |
| >TrCH Source Statistics Descriptor | O | | 9.2.1.65 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows. |

## 9.2.2.4MD Void

## 9.2.2.4ME Void

## 9.2.2.4MF Void

## 9.2.2.4MG E-DCH Maximum Bitrate

The E-DCH Maximum Bitrate parameter indicates the Maximum Bitrate for an E-DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Maximum Bitrate | | | INTEGER (0..5742,…, 5743..11498) | Bitrate on transport block level. Unit is kbits per second. |

## 9.2.2.4MH Void

## 9.2.2.4MI E-DCH Reference Power Offset

The E-DCH Reference Power Offset is used to estimate the E-DPDCH power from E-TFCI without decoding MAC-e PDUs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Reference Power Offset | | | INTEGER (0..6) | According to mapping in ref. [21] subclause 4.2.1.3. |

### 9.2.2.4MJ Void

### 9.2.2.4N Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission indicates the maximum numbers of bits allowed to be included in a MAC-e (or MAC-i) PDU per E-DCH MAC-d flow configured for non- scheduled transmissions. If the range of the *Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is insufficient to represent the value to be sent to the DRNS, the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE shall be used to represent the value to be sent to the DRNS, see section 9.2.2.4R.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of Bits per MAC-e PDU for Non-Scheduled Transmission | | | INTEGER (1..19982) | |

### 9.2.2.4O HARQ Process Allocation For 2ms TTI

The HARQ Process Allocation for 2ms TTI indicates those HARQ processes that are allowed. MAC-d PDU's for a MAC-d flow are only allowed to be transmitted in those processes for which the bit is set to "1".

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HARQ Process Allocation For 2ms TTI | | | BIT STRING (8) | The first Bit corresponds to HARQ process ID = 0,<br>the second bit corresponds to HARQ process ID = 1,<br>etc.<br>The HARQ process ID for 2ms TTI is defined in [41], chapter 11.8.1.3. |

### 9.2.2.4P Reference E-TFCI Power Offset

The Reference E-TFCI Power Offset is used to calculate the reference E-TFC gain factor $\beta_{ed,ref}$ as defined in [10]. If the range of the *Reference E-TFCI Power Offset* IE is insufficient to represent the value to be sent to the DRNS, the *Extended Reference E-TFCI Power Offset* IE shall be used to represent the value to be sent to the DRNS, see section 9.2.2.4Q.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Reference E-TFCI Power Offset | | | INTEGER (0..29) | According to mapping in ref. [21] subclause 4.2.1.3 |

### 9.2.2.4Q Extended Reference E-TFCI Power Offset

The *Extended Reference E-TFCI Power Offset* IE shall be used if the range of the *Reference E-TFCI Power Offset* IE (see section 9.2.2.4P) is insufficient to represent the value of the Reference E-TFCI Power Offset to be sent to the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Extended Reference E-TFCI Power Offset | | | INTEGER (30..31,…) | According to mapping in ref. [21] subclause 4.2.1.3 |

### 9.2.2.4R Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE shall be used if the range of the *Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE (see section 9.2.2.4N) is insufficient to represent the value of the Maximum Number of Bits per MAC-e (or MAC-i) PDU for Non-scheduled Transmission to be sent to the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission | | | INTEGER (19983..22978,…) | |

### 9.2.2.4S Transport Bearer Not Requested Indicator

The Transport Bearer Not Requested Indicator parameter indicates that a transport bearer shall not be established or may not to be established for DCH or an E-DCH MAC-d flow.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transport Bearer Not Requested Indicator | | | ENUMERATED (Transport Bearer shall not be Established, Transport Bearer may not be Established) | |

### 9.2.2.4T Transport Bearer Not Setup Indicator

The Transport Bearer Not Setup Indicator parameter indicates that a transport bearer will not be established for a DCH or an E-DCH MAC-d flow.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transport Bearer Not Setup Indicator | | | ENUMERATED (Transport Bearer Not Setup) | |

### 9.2.2.5 D-Field Length

Void

### 9.2.2.6 Diversity Control Field

Void.

### 9.2.2.7 Diversity Indication

Void.

### 9.2.2.8 Diversity Mode

Define the diversity mode to be applied.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Diversity Mode | | | ENUMERATED(None, STTD, Closed loop mode 1, Not Used,…) | The *Diversity Mode* IE shall never be set to "Not Used". If received it shall be rejected. |

### 9.2.2.9 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, according to ref. [8].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL DPCH Slot Format | | | INTEGER (0..16,…) | |

### 9.2.2.9A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required or that an Initial DL DPCH Timing Adjustment has been performed by the DRNS. It also indicates whether the timing adjustment consists of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL DPCH Timing Adjustment | | | ENUMERATED(timing advance, timing delay) | The size of the timing adjustment is 256 chips. |

### 9.2.2.10 DL Power

Void

### 9.2.2.10A DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Power Adjustment Type | M | | 9.2.2.28 | | – | |
| DL Reference Power | C-Common | | DL power 9.2.1.21A | Power on DPCH or on F-DPCH | – | |
| **DL Reference Power Information** | C-Individual | *1..<maxnoofRLs>* | | | – | |
| >RL ID | M | | 9.2.1.49 | | – | |
| >DL Reference Power | M | | DL power 9.2.1.21A | Power on DPCH or on F-DPCH | – | |
| Max Adjustment Step | C-CommonOrIndividual | | 9.2.2.23 | | – | |
| Adjustment Period | C-CommonOrIndividual | | 9.2.2.B | | – | |
| Adjustment Ratio | C-CommonOrIndividual | | 9.2.2.C | | – | |

| Condition | Explanation |
|---|---|
| Common | The IE shall be present if the *Power Adjustment Type* IE is set to "Common". |
| Individual | The IE shall be present if the *Power Adjustment Type* IE is set to "Individual". |
| CommonOrIndividual | The IE shall be present if the *Power Adjustment Type* IE is set to "Common" or "Individual". |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of Radio Links for a UE. |

## 9.2.2.10B DL Power Balancing Activation Indicator

The *DL Power Balancing Activation Indicator* IE indicates that the power balancing is activated in the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Power Balancing Activation Indicator | | | ENUMERATED(DL Power Balancing Activated). | |

## 9.2.2.10C DL Reference Power Information

The *DL Reference Power Information* IE provides reference power of the power balancing to be used in the relevant RL(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Common DL Reference Power | O | | DL power 9.2.1.21A | Power on DPCH or on F-DPCH | – | |
| **Individual DL Reference Power Information** | | *0..<maxnoofRLs>* | | | – | |
| >RL ID | M | | 9.2.1.49 | | – | |
| >DL Reference Power | M | | DL power 9.2.1.21A | Power on DPCH or on F-DPCH | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for a UE. |

### 9.2.2.10D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Power Balancing Updated Indicator | | | ENUMERATED(DL Power Balancing Updated). | |

### 9.2.2.11 DL Scrambling Code

DL Scrambling code to be used by the RL. One cell may have multiple DL Scrambling codes available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Scrambling Code | | | INTEGER (0..15) | 0= Primary scrambling code of the cell<br>1…15= Secondary scrambling code |

### 9.2.2.12 Downlink Frame Type

Void

### 9.2.2.12A DPC Mode

The *DPC Mode* IE indicates the DPC mode to be applied [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DPC Mode | | | ENUMERATED (Mode0, Mode1, …) | Mode0: The DRNS shall estimate the UE transmitted TPC command and update the DL power in every slot<br>Mode1: The DRNS shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots |

### 9.2.2.13 DRAC Control

The possibility to use DRAC control has been removed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DRAC Control | | | ENUMERATED (Not Used, Not-Requested) | The *DRAC Control* IE shall never be set to “Not Used”. |

### 9.2.2.13A DSCH FDD Information

Void.

### 9.2.2.13B DSCH FDD Information Response

Void.

### 9.2.2.13Bb DSCH-RNTI

Void.

### 9.2.2.13C FDD DCHs To Modify

The *FDD DCHs To Modify* IE provides information for DCHs to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **FDD DCHs To Modify** | | *1..<maxnoofDCHs>* | | | – | |
| >UL FP Mode | O | | 9.2.1.67 | | – | |
| >ToAWS | O | | 9.2.1.58 | | – | |
| >ToAWE | O | | 9.2.1.57 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| **>DCH Specific Info** | | *1..<maxnoofDCHs>* | | | – | |
| >>DCH ID | M | | 9.2.1.16 | | – | |
| >>Transport Format Set | O | | 9.2.1.64 | For the UL. | – | |
| >>Transport Format Set | O | | 9.2.1.64 | For the DL. | – | |
| >>Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >>Frame Handling Priority | O | | 9.2.1.29 | | – | |
| >>Not Used | O | | NULL | | – | |
| >>Guaranteed Rate Information | O | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | O | | 9.2.1.58A | | YES | ignore |
| >>Unidirectional DCH Indicator | O | | 9.2.1.68B | | YES | reject |
| >TNL QoS | O | | 9.2.1.56A | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |

### 9.2.2.13D Enhanced DSCH PC

Void.

### 9.2.2.13E Enhanced DSCH PC Counter

Void.

### 9.2.2.13F Enhanced DSCH PC Indicator

Void.

### 9.2.2.13G Enhanced DSCH PC Wnd

Void.

### 9.2.2.13H Enhanced DSCH Power Offset

Void.

### 9.2.2.13I Enhanced Primary CPICH Ec/No

Energy per PN chip divided by the total received power spectral density measured on the Primary CPICH by the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Enhanced Primary CPICH Ec/No | | | INTEGER(0. .49) | According to the mapping of the Primary CPICH Ec/Io UE measurement defined in ref. [23] and [24] |

### 9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FDD DL Channelisation Code Number | | | INTEGER(0. . 511) | According to the mapping in [27].<br>The maximum value is equal to the DL spreading factor –1 |

### 9.2.2.14A FDD DL Code Information

The *FDD DL Code Information* IE provides FDD DL Code information for all DPCHs or for the F-DPCH of one Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **FDD DL Code Information** | | *1.. <maxnoof DLCodes* | | | – | |
| >DL Scrambling Code | M | | 9.2.2.11 | | – | |
| >FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >Transmission Gap Pattern Sequence Scrambling Code Information | O | | 9.2.2.47B | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofDLCodes* | Maximum number of DL Channelisation Codes for one UE. |

### 9.2.2.15 FDD S-CCPCH Offset

Void.

### 9.2.2.16 FDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| FDD TPC Downlink Step Size | | | ENUMERATED(0.5, 1, 1.5, 2,…) | |

### 9.2.2.16A First RLS Indicator

The First *RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| First RLS Indicator | | | ENUMERATED(first RLS, not first RLS) | |

### 9.2.2.17 Gap Position Mode

Void.

### 9.2.2.18 Gap Period (TGP)

Void.

### 9.2.2.19 Gap Starting Slot Number (SN)

Void

### 9.2.2.19a HS-DSCH FDD Information

The *HS-DSCH FDD Information* IE is used for initial addition of HS-DSCH information to UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-DSCH MAC-d Flows Information | M | | 9.2.1.30OA | | – | |
| **UE Capabilities Information** | | 1 | | | – | |
| >HS-DSCH Physical Layer Category | M | | 9.2.1.30Oa | | – | |
| >1.28 Mcps TDD uplink physical channel capability | O | | 9.2.3.10D | Not to be used. | YES | ignore |
| >Number of Supported Carriers | O | | ENUMERATED ( One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Tree-six carrier, Six-six carrier, ...) | Not to be used. | YES | reject |
| >Multi-carrier HS-DSCH Physical Layer Category | O | | 9.2.1.30Oa | Not to be used. | YES | ignore |
| MAC-hs Reordering Buffer Size for RLC-UM | M | | 9.2.1.34Ab | | – | |
| CQI Feedback Cycle k | M | | 9.2.2.24a | | – | |
| CQI Repetition Factor | C-CQICyclek | | 9.2.2.24c | | – | |
| ACK-NACK Repetition Factor | M | | 9.2.2.a | | – | |
| CQI Power Offset | M | | 9.2.2.24b | | – | |
| ACK Power Offset | M | | 9.2.2.b | | – | |
| NACK Power Offset | M | | 9.2.2.26a | | – | |
| HS-SCCH Power Offset | O | | 9.2.2.19d | | – | |
| HARQ Preamble Mode | O | | 9.2.2.57 | | YES | ignore |
| MIMO Activation Indicator | O | | 9.2.1.134 | | YES | reject |
| HS-DSCH MAC-d PDU Size Format | O | | 9.2.1.30OC | If not present, “Indexed MAC-d PDU Size” shall be used. | YES | reject |
| Sixtyfour QAM Usage Allowed Indicator | O | | 9.2.2.79A | | YES | ignore |
| UE with enhanced HS-SCCH support indicator | O | | NULL | UE supports enhanced HS-SCCH functionality:<br>- UE supports different HS-SCCH in consecutive TTIs and,<br>- in HS-SCCH-less operation mode the UE supports HS-SCCH orders | YES | ignore |
| Enhanced HS Serving CC Abort | O | | ENUMERATED (Abort Enhanced HS Serving CC, …) | Shall be ignored in Radio Link Setup and Radio Link Addition procedures. | YES | reject |
| UE Support Indicator Extension | O | | 9.2.2.103 | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| Power Offset For S-CPICH for MIMO Request Indicator | O | | 9.2.2.105 | | YES | ignore |
| Single Stream MIMO Activation Indicator | O | | 9.2.2.106 | | YES | reject |

| Condition | Explanation |
|---|---|
| CQICyclek | The IE shall be present if the *CQI Feedback Cycle k* IE is set to a value greater than 0. |

## 9.2.2.19aa HS-DSCH FDD Secondary Serving Information

The *HS-DSCH FDD Secondary Serving Information* IE is used for initial addition of Secondary Serving HS-DSCH information to UE Context and defines the cell specific parameters for the secondary serving HS-DSCH Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-SCCH Power Offset | O | | 9.2.2.19d | | – | |
| Sixtyfour QAM Usage Allowed Indicator | O | | 9.2.2.79A | | – | |
| MIMO Activation Indicator | O | | 9.2.1.119 | | YES | reject |
| Single Stream MIMO Activation Indicator | O | | 9.2.2.106 | | YES | reject |
| Diversity Mode | O | | 9.2.2.8 | If Diversity mode = “Closed loop mode 1” the procedure shall be rejected. | YES | reject |
| Transmit Diversity Indicator | O | | 9.2.2.48 | | YES | reject |

## 9.2.2.19b HS-DSCH FDD Information Response

The *HS-DSCH FDD Information Response* IE provides information for HS-DSCH MAC-d flows that have been established or modified. It also provides additional HS-DSCH information determined within the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-DSCH MAC-d Flow Specific Information Response** | | *0..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.30O | | – | |
| >Binding ID | O | | 9.2.1.3 | | – | |
| >Transport Layer Address | O | | 9.2.1.62 | | – | |
| >HS-DSCH Initial Capacity Allocation | O | | 9.2.1.30Na | | – | |
| **HS-SCCH Specific Information Response** | | *0..<maxnoofHSSCCHcodes>* | | | – | |
| >Code Number | M | | INTEGER (0..127) | | – | |
| HS-PDSCH And HS-SCCH Scrambling Code | O | | DL Scrambling Code 9.2.2.11 | | – | |
| Measurement Power Offset | O | | 9.2.2.24d | | – | |
| HARQ Memory Partitioning | O | | 9.2.1.116 | | – | |
| User Plane Congestion Fields Inclusion | O | | 9.2.1.70C | | YES | ignore |
| HARQ Preamble Mode Activation Indicator | O | | 9.2.2.58 | | YES | ignore |
| MIMO Information Response | O | | 9.2.2.78 | | YES | Ignore |
| SixtyfourQAM DL Usage Indicator | O | | 9.2.2.79B | | YES | Ignore |
| HS-DSCH TB Size Table Indicator | O | | 9.2.2.19G | | YES | ignore |
| Power Offset For S-CPICH for MIMO | O | | 9.2.2.104 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of MAC-d flows. |
| *maxnoofHSSCCHcodes* | Maximum number of HS-SCCH codes. |

## 9.2.2.19ba HS-DSCH FDD Secondary Serving Information Response

The *HS-DSCH FDD Secondary Serving Information Response* IE provides Secondary Serving HS-DSCH information determined within the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-SCCH Specific Secondary Serving Information Response** | | *0..<maxnoofHSSCCHcodes>* | | | – | |
| >Code Number | M | | INTEGER (0..127) | | – | |
| HS-PDSCH And HS-SCCH Scrambling Code | O | | DL Scrambling Code 9.2.2.11 | | – | |
| Measurement Power Offset | O | | 9.2.2.24d | | – | |
| SixtyfourQAM DL Usage Indicator | O | | 9.2.2.79B | | – | |
| HS-DSCH TB Size Table Indicator | O | | 9.2.2.19G | | – | |
| MIMO Information Response | O | | 9.2.2.78 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofHSSCCHcodes* | Maximum number of HS-SCCH codes. |

## 9.2.2.19bb HS-DSCH FDD Secondary Serving Information To Modify

The *HS-DSCH FDD Secondary Serving Information To Modify* IE is used for modification of cell specific Secondary Serving HS-DSCH information in a UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-SCCH Power Offset | O | | 9.2.2.19d | | – | |
| HS-SCCH Code Change Grant | O | | 9.2.1.30S | | – | |
| Sixtyfour QAM Usage Allowed Indicator | O | | 9.2.2.79A | | – | |
| MIMO Mode Indicator | O | | 9.2.1.135 | | YES | reject |
| Single Stream MIMO Mode Indicator | O | | 9.2.2.107 | | YES | reject |
| Diversity Mode | O | | 9.2.2.8 | If Diversity mode = “Closed loop mode 1” the procedure shall be rejected. | YES | reject |
| Transmit Diversity Indicator | C-DiversityMode | | 9.2.2.48 | | YES | reject |
| Non Cell Specific Tx Diversity | O | | ENUMERATED (Tx Diversity, ...) | Value = “Tx Diversity”: Diversity Mode and Transmit Diversity Indicator shall be non cell specific. | YES | reject |

| Condition | Explanation |
|---|---|
| DiversityMode | The IE shall be present if *Diversity Mode* IE is present and not set to “None”. |

### 9.2.2.19bc HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised

The *HS-DSCH FDD Secondary Serving Information To Modify Unsynchronised* IE is used for modification of Secondary Serving HS-DSCH information in a UE Context with the Unsynchronised Radio Link Reconfiguration procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-SCCH Power Offset | O | | 9.2.2.19d | | – | |
| Sixtyfour QAM Usage Allowed Indicator | O | | 9.2.2.79A | | – | |
| MIMO Mode Indicator | O | | 9.2.1.135 | | YES | reject |
| Single Stream MIMO Mode Indicator | O | | 9.2.2.107 | | YES | reject |

### 9.2.2.19c HS-DSCH FDD Update Information

The *HS-DSCH FDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-SCCH Code Change Indicator | O | | 9.2.1.30R | | – | |
| CQI Feedback Cycle k | O | | 9.2.2.24a | | – | |
| CQI Repetition Factor | O | | 9.2.2.24c | | – | |
| ACK-NACK Repetition Factor | O | | 9.2.2.a | | – | |
| CQI Power Offset | O | | 9.2.2.24b | | – | |
| ACK Power Offset | O | | 9.2.2.b | | – | |
| NACK Power Offset | O | | 9.2.2.26a | | – | |
| HS-PDSCH Code Change Indicator | O | | 9.2.1.30V | | YES | ignore |

### 9.2.2.19ca HS-DSCH FDD Secondary Serving Update Information

The *HS-DSCH FDD Secondary Serving Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description |
|---|---|---|---|---|
| HS-SCCH Code Change Indicator | O | | 9.2.1.30R | |
| HS-PDSCH Code Change Indicator | O | | 9.2.1.30V | This IE shall never be included. If received it shall be ignored. |

### 9.2.2.19C HS-DSCH configured indicator

The *HS-DSCH Configured Indicator* IE indicates the configuration of HS-DSCH for the UE. The *HS-DSCH Configured Indicator* IE shall be used for the configuration of the E-DPDCH IQ branch mapping [21].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| HS-DSCH Configured Indicator | | | ENUMERATED (HS-DSCH configured, HS-DSCH not configured) | Indicator of the HS-DSCH configuration for configuration of the E-DPDCHs IQ branch mapping [21]. |

### 9.2.2.19d HS-SCCH Power Offset

The *HS-SCCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when FDPCH is configured. When F-DPCH is configured, the *HS-SCCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| HS-SCCH Power Offset | | | INTEGER (0..255) | Step 0.25 dB, range -32-+31.75 dB |

### 9.2.2.19e E-DCH FDD Update Information

The *E-DCH FDD Update Information* IE provides information for E-DCH to be updated. At least one IE shall be present.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Update Information** | | *0..<maxnoofEDCHMACdFlows>* | | | – | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | | – | |
| >HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | | – | |
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | | – | |
| **E-DCH DL Control Channel Change Information** | | *0..<maxnoofEDCHRLs>* | | | GLOBAL | ignore |
| >E-DCH RL ID | M | | RL ID 9.2.1.49 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows. |
| *maxnoofEDCHRLs* | Maximum number of E-DCH RLs for one UE |

### 9.2.2.19f HS-DSCH Serving Cell Change Information

The *HS-DSCH Serving Cell Change Information* IE contains information which is used in HS-DSCH Serving Cell change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-PDSCH RL ID | M | | RL ID 9.2.1.49 | | – | |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.19a | | – | |
| Continuous Packet Connectivity HS-SCCH less Information | O | | 9.2.2.74 | | YES | reject |
| Continuous Packet Connectivity DTX-DRX Information | O | | 9.2.2.72 | | YES | reject |

## 9.2.2.19g HS-DSCH Serving Cell Change Information Response

The *HS-DSCH Serving Cell Change Information Response* IE contains information which is used in HS-DSCH Serving Cell change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **CHOICE *Serving Cell Change*** | | | | | – | |
| >*Successful* | | | | | – | |
| >>HS-DSCH FDD Information Response | M | | 9.2.2.19b | | – | |
| >>HS-DSCH-RNTI | M | | 9.2.1.30P | | – | |
| >>Continuous Packet Connectivity HS-SCCH less Information Response | O | | 9.2.2.75 | | YES | Ignore |
| >*Unsuccessful* | | | | | – | |
| >>Cause | M | | 9.2.1.5 | | – | |

## 9.2.2.19ga HS-DSCH Secondary Serving Cell Change Information Response

The *HS-DSCH Secondary Serving Cell Change Information Response* IE contains information which is used in HS-DSCH Secondary Serving Cell change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **CHOICE *Secondary Serving Cell Change*** | | | | |
| >*Successful* | | | | |
| >>HS-DSCH FDD Secondary Serving Information Response | M | | 9.2.2.19ba | |
| >>HS-DSCH-RNTI | M | | 9.2.1.30P | |
| >*Unsuccessful* | | | | |
| >>Cause | M | | 9.2.1.5 | |

## 9.2.2.19G HS-DSCH TB Size Table Indicator

The *HS-DSCH TB Size Table Indicator* IE is used to indicate that octet aligned table [41] shall be used.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH TB Size Table Indicator | | | ENUMERATED (octet aligned) | |

### 9.2.2.19h E-DCH Serving Cell Change Information Response

The *E-DCH Serving Cell Change Information Response* IE contains information which is used in E-DCH Serving Cell change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Serving Cell Change* | | | | |
| *>Successful* | | | | |
| **>>RL Information Response** | | *0..<maxnoofRLs>* | | |
| **>>>**RL ID | M | | 9.2.1.49 | |
| **>>>**E-DCH FDD DL Control Channel Information | M | | 9.2.2.4D | |
| *>Unsuccessful* | | | | |
| >>Cause | M | | 9.2.1.5 | |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

### 9.2.2.20 IB_SG_POS

Void.

### 9.2.2.21 IB_SG_REP

Void.

### 9.2.2.21a Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links for the UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Inner Loop DL PC Status | | | ENUMERATED(Active, Inactive) | |

### 9.2.2.21b Initial DL DPCH Timing Adjustment Allowed

The *Initial DL DPCH Timing Adjustment Allowed* IE indicates that the DRNS is allowed to perform a timing adjustment (either a timing advance or a timing delay with respect to the SFN timing) when establishing a radio link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Initial DL DPCH Timing Adjustment Allowed | | | ENUMERATED ( initial DL DPCH Timing Adjustment Allowed) | |

### 9.2.2.21A Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, DRNS shall use the limited power increase algorithm as specified in [10], subclause 5.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Limited Power Increase | | | ENUMERATED(Used, Not used , ) | |

### 9.2.2.21B IPDL FDD Parameters

The *IPDL FDD Parameters* IE provides the information for the IPDL Configuration applied in FDD mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IP spacing FDD | M | | ENUMERATED(5,7,10,15,20,30,40,50,…) | See [10] |
| IP length | M | | ENUMERATED(5,10,…) | See [10] |
| IP offset | M | | INTEGER(0..9) | See [10] |
| Seed | M | | INTEGER(0..63) | See [10] |
| Burst mode parameters | O | | 9.2.1.4B | |

### 9.2.2.21C Length of TFCI2

Void.

### 9.2.2.21D Void

### 9.2.2.21E Void

### 9.2.2.21F Void

### 9.2.2.22 Max Adjustment Period

Void.

### 9.2.2.23 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustments shall be maximum 1 dB. This value does not include the DL inner loop PC adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Max Adjustment Step | | | INTEGER (1..10) | Slots |

### 9.2.2.24 Max Number of UL DPDCHs

Maximum number of uplink DPDCHs during the connection. Needed by the rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Max Number of UL DPDCHs | | | INTEGER (1..6) | |

### 9.2.2.24a CQI Feedback Cycle k

The *CQI Feedback Cycle k* IE provides the duration of the CQI feedback cycle.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CQI Feedback Cycle k | | | ENUMERATED (0, 2, 4, 8, 10, 20, 40, 80, 160,…, 16, 32, 64) | Unit ms<br>The allowed values for this IE depend on the configured CQI Repetition Factor and the HS-DSCH configuration as defined in [10]. |

### 9.2.2.24b CQI Power Offset

The *CQI Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slots carrying CQI information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| CQI Power Offset | | | INTEGER (0..8,…) | According to mapping in ref. [21] subclause 4.2.1. |

### 9.2.2.24c CQI Repetition Factor

The *CQI Repetition Factor* IE indicates the consecutive repetition of the CQI.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| CQI Repetition Factor | | | INTEGER (1..,4,...) | Step: 1 |

### 9.2.2.24d Measurement Power Offset

The *Measurement Power Offset* IE is used as defined in [10] subclause 6A.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement Power Offset | | | INTEGER (-12..26) | Unit: dB<br>Range: -6..13dB<br>Step: 0.5dB |

### 9.2.2.24e Maximum Set of E-DPDCHs

The Maximum Set of E-DPDCHs as defined in [9]. Needed by rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Set of E-DPDCHs | | | ENUMERATED (vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,…, v2xM2plus2xM4) | |

### 9.2.2.24f Void

### 9.2.2.24A Min DL Channelisation Code Length

Void

### 9.2.2.25 Min UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH during the connection. Needed by rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Min UL Channelisation Code Length | | | ENUMERATED(4,8,16, 32,64,128, 256) | |

### 9.2.2.26 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Multiplexing Position | | | ENUMERATED(Fixed, Flexible) | |

### 9.2.2.26a NACK Power Offset

The *NACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ NACK information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| NACK Power Offset | | | INTEGER (0..8,…) | According to mapping in ref. [21] subclause 4.2.1. |

### 9.2.2.26A Number of DL Channelisation Codes

This parameter notifies DRNS of the number of DL channelisation codes required for the Radio Link(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Number of DL Channelisation Codes | | | INTEGER (1..8) | |

### 9.2.2.27 Pattern Duration (PD)

Void

### 9.2.2.27a PC Preamble

Indicates DPDCH power control preamble length see ref. [7].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PCP Preamble | | | INTEGER (0..7,…) | In number of frames. |

### 9.2.2.27A PDSCH Code Mapping

Void.

### 9.2.2.27B Phase Reference Update Indicator

The *Phase Reference Update Indicator* IE indicates that the phase reference for the radio link needs to be changed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Phase Reference Update indicator | | | ENUMERATED (Phase Reference needs to be changed) | |

### 9.2.2.28 Power Adjustment Type

Defines the characteristic of the power adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Adjustment Type | | | ENUMERATED(None, Common, Individual) | |

### 9.2.2.29 Power Control Mode (PCM)

Void.

### 9.2.2.30 Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPCH in case the UE Context is configured to use DPCH in the downlink.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Offset | | | INTEGER (0..24) | Unit dB,<br>Step 0.25 dB,<br>Range 0..6 dB |

### 9.2.2.31 Power Resume Mode (PRM)

Void.

### 9.2.2.31A Preamble Signatures

Void.

### 9.2.2.32 Primary CPICH Ec/No

Energy per chip divided by the power density per band measured on the Primary CPICH by the terminal.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CPICH Ec/No | | | INTEGER (-30..+30) | Unit dB, step 1 dB<br>The value range is typically within the range of -24 dB to 0 dB according to the CPICH Ec/Io UE measurement defined in ref. [23]. |

### 9.2.2.32A Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CPICH Usage For Channel Estimation | | | ENUMERATED (Primary CPICH may be used, Primary CPICH shall not be used) | |

### 9.2.2.33 Propagation Delay (PD)

Propagation delay is the one-way propagation delay of the radio signal from the UE to the Node B. If the range of the *Propagation Delay* IE is insufficient to represent the measured value, it shall be set to its maximum value, and the *Extended Propagation Delay* IE (see 9.2.2.33a) shall be used to represent the propagation delay value.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Propagation Delay | | | INTEGER (0..255) | Unit: Chips. Step: 3 chips.<br>0=0 chips,<br>1=3 chips, … |

### 9.2.2.33a Extended Propagation Delay

The Extended Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B. It shall be used if the *Propagation Delay* IE (see 9.2.2.33) cannot represent the measured value, due to range limitation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Extended Propagation Delay | | | INTEGER (255..1023) | Continuation of intervals as defined in [23].<br>Unit: chip<br>Range: 765..3069 chips<br>Step: 3 chips |

### 9.2.2.33A PRACH Minimum Spreading Factor

Void.

### 9.2.2.34 QE-Selector

Void.

### 9.2.2.34a Qth Parameter

Void.

### 9.2.2.34A RACH Sub Channel Numbers

Void.

### 9.2.2.35 RL Set ID

The RL Set ID uniquely identifies one RL Set within a UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RL Set ID | | | INTEGER (0..31) | |

### 9.2.2.35a RL Specific E-DCH Information

The *RL Specific E-DCH Information* IE provides RL specific E-DCH Information.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **RL Specific E-DCH Information** | | *1..<maxnoof EDCHMACd Flows>* | | | – | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | | – | |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Bearer Not Requested Indicator | O | | 9.2.2.4S | | YES | ignore |
| E-AGCH Power Offset | O | | 9.2.2.61 | | – | |
| E-RGCH Power Offset | O | | 9.2.2.62 | | – | |
| E-HICH Power Offset | O | | 9.2.2.63 | | – | |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

### 9.2.2.35A Received Total Wide Band Power

The parameter indicates the Received total wide band power in a cell, see ref. [11].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Received Total Wide Band Power | | | INTEGER(0. .621) | According to mapping in [23]. |

### 9.2.2.36 S-Field Length

Void.

### 9.2.2.36A Void

### 9.2.2.37 Scrambling Code Change

Void.

### 9.2.2.37A Scrambling Code Number

Void.

### 9.2.2.37B Secondary CCPCH Info

Void.

### 9.2.2.38 Secondary CCPCH Slot Format

Void.

### 9.2.2.38A Secondary CPICH Information

The *Secondary CPICH Information* IE provides the information on the Secondary CPICH when it can be used for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Scrambling Code | M | | 9.2.2.11 | |
| FDD DL Channelisation Code Number | M | | 9.2.2.14 | |

### 9.2.2.38B Secondary CPICH Information Change

The *Secondary CPICH Information Change* IE indicates modification of information of the Secondary CPICH for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Secondary CPICH Information Change* | M | | | |
| *>New Secondary CPICH* | | | | |
| >>Secondary CPICH Information | M | | 9.2.2.38A | |
| *>Secondary CPICH Shall Not Be Used* | | | NULL | |

### 9.2.2.38C Serving E-DCH RL

The *Serving E-DCH RL* IE indicates whether the Serving E-DCH RL is in the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Serving E-DCH RL* | M | | | |
| *>Serving E-DCH RL in this DRNS* | | | | |
| >>Serving E-DCH RL ID | M | | RL ID 9.2.1.49 | |
| *>Serving E-DCH RL not in this DRNS* | | | NULL | |

### 9.2.2.39 Slot Number (SN)

Void

### 9.2.2.39a Split Type

Void.

### 9.2.2.39A SRB Delay

Indicates the number of frames after the PC Preamble period during which transmission of data on some RRC Signalling Bearers shall be prohibited by UE in accordance with ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SRB Delay | | | INTEGER(0..7,…) | In number of frames. |

### 9.2.2.40 SSDT Cell Identity

Void.

### 9.2.2.40A SSDT Cell Identity for EDSCHPC

Void.

### 9.2.2.41 SSDT Cell Identity Length

Void.

### 9.2.2.42 SSDT Indication

Void.

### 9.2.2.43 SSDT Support Indicator

The possibility to use SSDT Support Indicator has been removed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SSDT Support Indicator | | | ENUMERATED(Not Used, SSDT not supported). | The *SSDT Support Indicator* IE shall never be set to "Not Used". |

### 9.2.2.44 STTD Indicator

Void.

### 9.2.2.45 STTD Support Indicator

The STTD Support Indicator indicates whether the STTD can be applied to DL DPCH and F-DPCH in the cell or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| STTD Support Indicator | | | ENUMERATED(STTD Supported, STTD not Supported). | |

### 9.2.2.45A Synchronisation Indicator

The *Synchronisation Indicator* IE indicates that Timing Maintained Synchronisation shall be used at start of Radio Link, see also [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Synchronisation Indicator | | | ENUMERATED (Timing Maintained Synchronisation,…) | |

### 9.2.2.46 TFCI Signalling Mode

This parameter indicates has only one value with any meaning.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TFCI Signalling Mode | | | ENUMERATED(Normal, Not Used) | The value “Not Used” shall not be used by the SRNC. The procedure shall be rejected by the DRNC if the value “Not Used” is received. |

### 9.2.2.46A TFCI PC Support Indicator

Void.

### 9.2.2.47 Transmission Gap Distance (TGD)

Void.

### 9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Transmission Gap Pattern Sequence Information** | | *1..<maxTGPS>* | | |
| >TGPSI Identifier | M | | INTEGER(1..<MaxTGPS>) | Transmission Gap Pattern Sequence Identifier<br>Establish a reference to the compressed mode pattern sequence. Up to <MaxTGPS> simultaneous compressed mode pattern sequences can be used. |
| >TGSN | M | | INTEGER(0..14) | Transmission Gap Starting Slot Number<br>The slot number of the first transmission gap slot within the TGCFN. |
| >TGL1 | M | | INTEGER(1..14) | The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots. |
| >TGL2 | O | | INTEGER(1..14) | The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1. |
| >TGD | M | | INTEGER (0, 15.. 269) | Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 =undefined). |
| >TGPL1 | M | | INTEGER( 1..144,…) | The duration of transmission gap pattern 1 in frames. |
| >Not-to-be-used-1 | O | | INTEGER( 1..144,…) | This IE shall never be included in the IE group. If received it shall be ignored. |
| >UL/DL mode | M | | ENUMERATED(UL only, DL only, UL/DL) | Defines whether only DL, only UL, or combined UL/DL compressed mode is used. |
| >Downlink Compressed Mode Method | C-DL | | ENUMERATED(not Used, SF/2, higher layer scheduling, …) | Method for generating downlink compressed mode gap<br>The *Downlink Compressed Mode Method* IE shall never be set to “not Used”. |
| >Uplink Compressed Mode Method | C-UL | | ENUMERATED(SF/2, higher layer scheduling, …) | Method for generating uplink compressed mode gap. |
| >Downlink Frame Type | M | | ENUMERATED(A, B,...) | Defines if frame type “A” or “B” shall be used in downlink compressed mode. |
| >DeltaSIR1 | M | | INTEGER(0..30) | Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase)<br>Step 0.1 dB, Range 0-3dB |
| >DeltaSIRafter1 | M | | INTEGER (0..30) | Delta in SIR target value to be set in the DRNS one frame after |

| | | | | |
|---|---|---|---|---|
| | | | | the frame containing the start of the first transmission gap in the transmission gap pattern,.<br>Step 0.1 dB, Range 0-3dB |
| >DeltaSIR2 | O | | INTEGER (0..30) | Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase)<br>When omitted, DeltaSIR2 = DeltaSIR1.<br>Step 0.1 dB, Range 0-3dB |
| >DeltaSIRafter2 | O | | INTEGER (0..30) | Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern.<br>When omitted, DeltaSIRafter2 = DeltaSIRafter1.<br>Step 0.1 dB, Range 0-3dB |

| Condition | Explanation |
|---|---|
| UL | The IE shall be present if the *UL/DL mode* IE is set to "UL only" or "UL/DL". |
| DL | The IE shall be present if the *UL/DL mode* IE is set to "DL only" or "UL/DL". |

| Range bound | Explanation |
|---|---|
| *maxTGPS* | Maximum number of transmission gap pattern sequences. |

### 9.2.2.47B Transmission Gap Pattern Sequence Scrambling Code Information

This IE indicates whether or not the alternative scrambling code will be used in the DRNS for the Downlink compressed mode method "SF/2" in the Transmission Gap Pattern Sequence. For details see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transmission Gap Pattern Sequence Scrambling Code Information | | | ENUMERATED(code change, no code change) | Code change = alternative scrambling code will be used. |

### 9.2.2.48 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether Transmit Diversity shall be active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transmit Diversity Indicator | | | ENUMERATED(active, inactive) | |

### 9.2.2.49 Transmit Gap Length (TGL)

Void

### 9.2.2.50 Tx Diversity Indicator

The Tx Diversity Indicator indicates if the following conditions are satisfied:

- Primary CPICH is broadcast from two antennas
- STTD is applied to Primary CCPCH
- TSTD is applied to Primary SCH and Secondary SCH

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Tx Diversity Indicator | | | ENUMERATED(true, false). | |

### 9.2.2.50A UE Support Of Dedicated Pilots For Channel Estimation

Void.

### 9.2.2.50B UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH

Void.

### 9.2.2.51 UL/DL Compressed Mode Selection

Void

### 9.2.2.52 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [8].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL DPCCH Slot Format | | | INTEGER (0..5,…) | Value 5 shall not be used. If value 5 is received, the procedure shall be rejected. |

### 9.2.2.52A UL DPDCH Indicator for E-DCH operation

This IE indicated whether the requested configuration actually contain an UL DPDCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL DPDCH Indicator for E-DCH operation | | | ENUMERATED (UL-DPDCH present, UL-DPDCH not present) | |

### 9.2.2.53 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL Scrambling Code Number | M | | INTEGER (0.. $2^{24}$-1) | |
| UL Scrambling Code Length | M | | ENUMERATED(Short, Long) | |

### 9.2.2.54 Uplink Delta SIR

Void

### 9.2.2.55 Uplink Delta SIR After

Void

### 9.2.2.56 DPC Mode Change Support Indicator

The *DPC Mode Change Support Indicator* IE indicates that the particular cell is capable to support DPC mode change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DPC Mode Change Support Indicator | | | ENUMERATTED (DPC Mode Change Supported) | |

### 9.2.2.57 HARQ Preamble Mode

The *HARQ Preamble Mode* IE is used as described as described in ref [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HARQ Preamble Mode | | | ENUMERATED(mode0, mode1) | "mode0" means HARQ Preamble Mode =0<br>"mode1" means HARQ Preamble Mode =1 |

### 9.2.2.58 HARQ Preamble Mode Activation Indicator

The HARQ Preamble Activation Indicator indicates if the configured HARQ Preamble Mode has been activated in the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HARQ Preamble Mode Activation Indicator | | | ENUMERATED(HARQ Preamble Mode Activated). | |

### 9.2.2.59 Frequency Band Indicator

The *Frequency Band Indicator* IE indicates frequency band as defined in [6].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| Frequency Band Indicator | | | ENUMERATED (Band I, Band II, Band III, Band IV, Band V, Band VI, Band VII, Band VIII, Band IX, Band X, Band XI, Band XII, Band XIII, Band XIV, Band XV, Band XVI, Band XVII, Band XVIII, Band XIX, Band XX, Band XXI, Band XXII,…) | |

### 9.2.2.60 E-RGCH Release Indicator

Indicates that the E-RGCH is released..

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH Release Indicator | | | ENUMERATED (E-RGCH released) | |

### 9.2.2.61 E-AGCH Power Offset

The *E-AGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-AGCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-AGCH Power Offset | | | INTEGER (0..255,…) | Unit: dB<br>Range: -32 .. +31.75 dB<br>Step: 0.25 dB |

### 9.2.2.61A E-AGCH Table Choice

The *E-AGCH Table Choice* IE indicates the choice of the E-AGCH table in[9].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-AGCH Table Choice | M | | ENUMERATED (Table 16B, Table 16B-1, …) | Table 16B indicates the Table 16B: Mapping of Absolute Grant Value in [9] and Table 16B-1 indicates the Table 16B.1: Alternative Mapping of Absolute Grant Value in [9]. |

### 9.2.2.62 E-RGCH Power Offset

The *E-RGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-RGCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH Power Offset | | | INTEGER (0..255,…) | Unit: dB<br>Range: -32 .. +31.75 dB<br>Step: 0.25 dB |

### 9.2.2.63 E-HICH Power Offset

The *E-HICH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-HICH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-HICH Power Offset | | | INTEGER (0..255,…) | Unit: dB<br>Range: -32 .. +31.75 dB<br>Step: 0.25 dB |

### 9.2.2.64 E-RGCH 2-Index-Step Threshold

The *E-RGCH 2-index-step-threshold* IE is used to determine the Serving Grant.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH 2-Index-Step Threshold | | | INTEGER (0..37) | Refers to an index in the “SG-Table” (see [41]). |

### 9.2.2.65 E-RGCH 3-Index-Step Threshold

The *E-RGCH 3-index-step-threshold* IE is used to determine the Serving Grant.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH 3-Index-Step Threshold | | | INTEGER (0..37) | Refers to an index in the “SG-Table” (see [41]). |

### 9.2.2.66 HARQ Info for E-DCH

The HARQ Info for E-DCH is used to indicate the use of redundancy version (RV) for the EDCH HARQ transmissions.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics description |
|---|---|---|---|---|
| HARQ Info for E-DCH | | | ENUMERATED (rv0, rvtable) | “rv0” indicates that the UE will only use E_DCH RV index 0.<br>“rvtable” indicates that the UE will use an RSN based RV index as specified in [9] |

### 9.2.2.67 DCH Indicator For E-DCH-HSDPA Operation

The DCH Indicator For E-DCH-HSDPA Operation parameter indicates whether *DCH Information* IE should be ignored in the message in which the *DCH Indicator For E-DCH-HSDPA Operation* IE is included.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DCH Indicator For E-DCH-HSDPA Operation | | | ENUMERATED (DCH not present) | |

### 9.2.2.68 E-RGCH and E-HICH Channelisation Code Validity Indicator

The *E-RGCH and E-HICH Channelisation Code Validity Indicator* parameter indicates if the *E-RGCH/E-HICH Channelisation Code* IE shall be ignored in the *E-DCH FDD DL Control Channel Information* IE in which the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE was included.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-RGCH and E-HICH Channelisation Code Validity Indicator | | | ENUMERATED (E-RGCH and E-HICH Channelisation Code not valid) | |

### 9.2.2.69 E-DCH Minimum Set E-TFCI Validity Indicator

The *E-DCH Minimum Set E-TFCI Validity Indicator* parameter indicates if the *E-DCH Minimum Set E-TFCI* IE shall be ignored in the *E-DCH Transport Format Combination Set Information* IE in which the *E-DCH Minimum Set E-TFCI Validity Indicator* IE was included.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Minimum Set E-TFCI Validity Indicator | | | ENUMERATED (E-DCH Minimum Set E-TFCI not valid) | |

### 9.2.2.70 Fast Reconfiguration Mode

The *Fast Reconfiguration Mode* IE is used to notify the DRNS that the SRNC would like to use the activation time "when the UE is detected on the new configuration" as the timing for the reconfiguration.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Fast Reconfiguration Mode | | | ENUMERATED ( Fast) | |

### 9.2.2.71 Fast Reconfiguration Permission

The *Fast Reconfiguration Permission* IE is used to indicate to the SRNC that the DRNS can apply the activation time "when the UE is detected on the new configuration" for this reconfiguration.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Fast Reconfiguration Permission | | | ENUMERATED ( Allowed) | |

### 9.2.2.72 Continuous Packet Connectivity DTX-DRX Information

The *Continuous Packet Connectivity DTX-DRX Information* IE defines the parameters used for Continuos Packet Connectivity DTX-DRX operation (see ref. [10]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE DTX DRX Offset | M | | INTEGER (0..159) | Units of subframes. Offset of the UE DTX and DRX cycles at the given TTI |
| Enabling Delay | M | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128) | Units of radio frames |
| **DTX Information** | | *1* | | |
| >CHOICE E-DCH TTI Length | M | | | |
| *>>2ms* | | | | |
| >>>UE DTX Cycle 1 | M | | ENUMERATED (1, 4, 5, 8, 10, 16, 20) | Units of subframes |
| >>>UE DTX Cycle 2 | M | | ENUMERATED (4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160) | Units of subframes |
| >>>MAC DTX Cycle | M | | ENUMERATED (1, 4, 5, 8, 10, 16, 20) | Units of subframes |
| *>>10ms* | | | | |
| >>>UE DTX Cycle 1 | M | | ENUMERATED (1, 5, 10, 20) | Units of subframes |
| >>>UE DTX Cycle 2 | M | | ENUMERATED (5, 10, 20, 40, 80, 160) | Units of subframes |
| >>>MAC DTX Cycle | M | | ENUMERATED (5, 10, 20) | Units of subframes |
| >Inactivity Threshold for UE DTX Cycle 2 | M | | ENUMERATED (1, 4, 8, 16, 32, 64, 128, 256) | Units of E-DCH TTIs |
| >UE DTX Long Preamble | M | | ENUMERATED (2,4,15) | Units of slots |
| >MAC Inactivity Threshold | M | | ENUMERATED (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity) | Units of E-DCH TTIs |
| >CQI DTX Timer | M | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity) | Units of subframes |
| >UE DPCCH burst1 | M | | ENUMERATED (1, 2, 5) | Units of subframes |
| >UE DPCCH burst2 | M | | ENUMERATED (1, 2, 5) | Units of subframes |
| **DRX Information** | | *0..1* | | |
| >UE DRX Cycle | M | | ENUMERATED (4, 5, 8, 10, 16, 20) | Units of subframes |
| >Inactivity Threshold for UE DRX Cycle | M | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512) | Units of subframes |
| >Inactivity Threshold for UE Grant Monitoring | M | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256) | Units of E-DCH TTIs |
| >UE DRX Grant Monitoring | M | | BOOLEAN | True: DRX Grant Monitoring shall be applied.<br>False: DRX Grant Monitoring shall not be applied. |

### 9.2.2.73 Continuous Packet Connectivity DTX-DRX Information To Modify

The *Continuous Packet Connectivity DTX-DRX Information To Modify* IE is used for modification of Continuous Packet Connectivity DTX-DRX information in a UE Context. The *Continuous Packet Connectivity DTX-DRX Information To Modify* IE shall include at least one of the following IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE DTX DRX Offset | O | | INTEGER (0..159) | Units of subframes. Offset of the UE DTX and DRX cycles at the given TTI |
| Enabling Delay | O | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128) | Units of radio frames |
| CHOICE *DTX Information To Modify* | O | | | |
| *>Modify* | | | | |
| >>CHOICE E-DCH TTI Length | O | | | |
| *>>>2ms* | | | | |
| >>>>UE DTX Cycle 1 | O | | ENUMERATED (1, 4, 5, 8, 10, 16, 20) | Units of subframes |
| >>>>UE DTX Cycle 2 | O | | ENUMERATED (4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160) | Units of subframes |
| >>>>MAC DTX Cycle | O | | ENUMERATED (1, 4, 5, 8, 10, 16, 20) | Units of subframes |
| *>>>10ms* | | | | |
| >>>>UE DTX Cycle 1 | O | | ENUMERATED (1, 5, 10, 20) | Units of subframes |
| >>>>UE DTX Cycle 2 | O | | ENUMERATED (5, 10, 20, 40, 80, 160) | Units of subframes |
| >>>>MAC DTX Cycle | O | | ENUMERATED (5, 10, 20) | Units of subframes |
| >>Inactivity Threshold for UE DTX Cycle 2 | O | | ENUMERATED (1, 4, 8, 16, 32, 64, 128, 256) | Units of E-DCH TTIs |
| >>UE DTX Long Preamble | O | | ENUMERATED (2,4,15) | Units of slots |
| >>MAC Inactivity Threshold | O | | ENUMERATED (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity) | Units of E-DCH TTIs |
| >>CQI DTX Timer | O | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity) | Units of subframes |
| >>UE DPCCH burst1 | O | | ENUMERATED (1, 2, 5) | Units of subframes |
| >>UE DPCCH burst2 | O | | ENUMERATED (1, 2, 5) | Units of subframes |
| *>Deactivate* | | | | |
| CHOICE *DRX Information To Modify* | O | | | |
| *>Modify* | | | | |
| >>UE DRX Cycle | O | | ENUMERATED (4, 5, 8, 10, 16, 20) | Units of subframes |
| >>Inactivity Threshold for UE DRX Cycle | O | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512) | Units of subframes |
| >>Inactivity Threshold for UE Grant Monitoring | O | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256) | Units of E-DCH TTIs |
| >>UE DRX Grant Monitoring | O | | BOOLEAN | True = DRX Grant Monitoring shall be applied.<br>False = DRX Grant Monitoring shall not be applied. |
| *>Deactivate* | | | NULL | |

### 9.2.2.74 Continuous Packet Connectivity HS-SCCH less Information

The *Continuous Packet Connectivity HS-SCCH less Information* IE defines the parameters used for Continuos Packet Connectivity HS-SCCH less operation (see ref. [10]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Transport Block Size List** | | *1..<maxnoofHS-DSCHTBSsHS-SCCHless>* | | |
| >Transport Block Size Index | M | | INTEGER (1..maxnoofHS-DSCHTBSs) | |
| >HS-PDSCH Second Code Support | M | | BOOLEAN | True = The second HS-PDSCH code shall also be used<br>False = The second HS-PDSCH code shall not be used |

| Range Bound | Explanation |
|---|---|
| maxnoofHS-DSCHTBSsHS-SCCHless | Maximum number of HS-DSCH Transport Block Sizes used for HS-SCCH-less operation |
| maxnoofHS-DSCHTBSs | Maximum number of HS-DSCH Transport Block Sizes |

### 9.2.2.75 Continuous Packet Connectivity HS-SCCH less Information Response

The *Continuous Packet Connectivity HS-SCCH less Information Response* IE provides information for HS-SCCH less operation determined within the Node B (see ref. [10]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-PDSCH First Code Index | M | | INTEGER (1..maxHS-PDSCHCodeNrComp-1) | Index of first HS-PDSCH code |
| HS-PDSCH Second Code Index | O | | INTEGER (1..maxHS-PDSCHCodeNrComp-1) | Index of second HS-PDSCH code. See Note 1. |
| NOTE 1: The “HS-PDSCH second code index” value is the value of IE “HS-PDSCH First Code Index” incremented by 1. | | | | |

| Range Bound | Explanation |
|---|---|
| maxHS-PDSCHCodeNrComp | Maximum number of codes at the defined spreading factor, within the complete code tree |

### 9.2.2.75A Continuous Packet Connectivity HS-SCCH Less Deactivate Indicator

The *Continuous Packet Connectivity HS-SCCH Less Deactivate Indicator* IE is used to deactive HS-SCCH less operation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Continuous Packet Connectivity HS-SCCH Less Deactivate Indicator | M | | NULL | |

### 9.2.2.76 MIMO Activation Indicator

Void

### 9.2.2.77 MIMO Mode Indicator

Void

### 9.2.2.78 MIMO Information Response

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE Pilot Configuration | M | | | |
| >*Primary and Secondary CPICH* | | | | |
| >>MIMO S-CPICH Channelisation Code | M | | INTEGER (0..255) | |
| >*Normal and Diversity Primary CPICH* | | | NULL | |
| MIMO N/M Ratio | M | | ENUMERATED (1/2, 2/3, ¾, 4/5, 5/6, 6/7, 7/8, 8/9, 9/10, 1/1,…) | |

### 9.2.2.79 SixtyfourQAM DL Support Indicator

Void.

### 9.2.2.79A Sixtyfour QAM Usage Allowed Indicator

The *Sixtyfour QAM Usage Allowed Indicator* IE indicates whether the Node B is allowed to use 64 QAM modulation for HS-DSCH transmission or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Sixtyfour QAM Usage Allowed Indicator | M | | ENUMERATED (Allowed, Not-Allowed) | |

### 9.2.2.79B SixtyfourQAM DL Usage Indicator

The *SixtyfourQAM DL Usage Indicator* IE indicates if the Node B is using 64 QAM modulation for the HS-DSCH transmission, or if the Node B is not using 64 QAM modulation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SixtyfourQAM DL Usage Indicator | | | ENUMERATED (SixtyfourQAM DL Used, SixtyfourQAM DL Not Used) | |

### 9.2.2.80 Enhanced FACH *Support Indicator*

Void.

### 9.2.2.81 Enhanced PCH *Support Indicator*

Void.

### 9.2.2.82 Priority Queue Information for Enhanced FACH/PCH

Void.

### 9.2.2.83 SixteenQAM UL Information

Void.

### 9.2.2.84 SixteenQAM UL Information To Modify

Void.

### 9.2.2.85 F-DPCH Slot Format

The *F-DPCH Slot Format* IE defines the F-DPCH slot format for the TPC bits, as defined in [8].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| F-DPCH Slot Format | | | INTEGER (0..9) | |

### 9.2.2.86 F-DPCH Slot Format Support Request

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| F-DPCH Slot Format Support Request | | | NULL | |

### 9.2.2.87 Max UE DTX Cycle

The *Max UE DTX Cycle* IE defines the maximum UE DTX cycle supported by the Node B for Continuous Packet Connectivity DTX-DRX operation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Max UE DTX Cycle | M | | ENUMERATED (v5, v10, v20, v40, v64, v80, v128, v160,…) | Units of subframes |

### 9.2.2.88 Enhanced PCH *Capability*

Void.

### 9.2.2.89 MAC-ehs Reset Timer

Void.

### 9.2.2.90 SixteenQAM UL Operation Indicator

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SixteenQAM UL Operation Indicator | O | | ENUMERATED (Activate, Deactivate) | |

### 9.2.2.91 E-TFCI Boost Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-TFCI BetaEC Boost | M | | INTEGER (0..127,…) | E-TFCI threshold beyond which boosting of E-DPCCH is enabled |
| UL Delta T2TP | *C-E-TFCIboost 127* | | INTEGER (0..6,…) | Total E-DPDCH power across all codes to the combined power of DPCCH and E-DPCCH |

| Condition | Explanation |
|---|---|
| E-TFCIboost127 | The IE shall be present if the E-TFCI BetaEC Boost IE value is not set o 127. |

### 9.2.2.92 Common E-DCH Support Indicator

This IE indicates the Common E-DCH Support.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common E-DCH Support Indicator | | | NULL | |

### 9.2.2.93 Common E-DCH MAC-d Flow Specific Information

The *Common E-DCH MAC-d Flow Specific Information* IE provides information associated to Common E-DCH MAC-d Flow used for Common E-DCH.

| IE/Group Name | Presence | *Range* | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Common E-DCH MAC-d Flow Specific Information** | | *1..<maxnoofEDCHMACdFlows>* | | |
| >Common E-DCH MAC-d Flow ID | M | | E-DCH MAC-d flow 9.2.1.91 | |
| >Maximum Number Of Retransmissions For E-DCH | M | | 9.2.1.100 | |
| >E-DCH HARQ Power Offset FDD | M | | 9.2.2.4L | |
| >E-DCH MAC-d Flow Multiplexing List | O | | 9.2.1.89 | |
| **>Common E-DCH Logical Channel information** | M | *1..<maxnooflogicalchannels>* | | |
| >>Logical Channel ID | M | | 9.2.1.97 | |
| >>Maximum MAC-d PDU Size Extended | M | | MAC PDU Size Extended 9.2.1.34D | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d Flows |
| *maxnooflogicalchannels* | Maximum number of logical channels |

### 9.2.2.94 Counting Information

The *Counting Information* IE provides counting result for MBMS service for each cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Counting Information** | | *1..<maxnoofFDDneighbours>* | | |
| >C-ID | M | | 9.2.1.6 | |
| >Counting Result | M | | INTEGER (0..63) | The number of Ues listen to the MBMS Service. If the number of the UE is more than 63, this IE set to 63. |

| Range bound | Explanation |
|---|---|
| *maxnoofFDDneighbours* | Maximum number of neighbouring FDD cell for one cell. |

### 9.2.2.95 Transmission Mode Information

The *Transmission Mode Information* IE provides transmission mode for MBMS service for each cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Counting Information** | | *1..<maxnoofFDDneighbours>* | | |
| >C-ID | M | | 9.2.1.6 | |
| >Transmission Mode | M | | 9.2.1.81 | |

| Range bound | Explanation |
|---|---|
| *maxnoofFDDneighbours* | Maximum number of neighbouring FDD cell for one cell. |

### 9.2.2.96 MBMS Neighbouring Cell Information

The parameter contains information for the MBMS p-t-m radio bearer configuration procedure as defined in [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **MBMS Neighbouring Cell Information** | | | | |
| >MBMS Concatenated Service List | | *1..<maxlengthMBMSconcatservlists >* | | TMGI shall be uniquely defined by a reference to this index from the *MBMS short transmission identity* IE [16] in the *L3 Information* IE. |
| >>TMGI | M | | 9.2.1.80 | |
| >L3 Information | O | | 9.2.1.32 | The IE Contains MBMS COMMON P-T-M RB INFORMATION defined in ref. [16]. |
| >L3 Information | O | | 9.2.1.32 | The IE Contains MBMS CURRENT CELL P-T-M RB INFORMATION defined in ref. [16]. |

| Range bound | Explanation |
|---|---|
| *maxlengthMBMSconcatservlists* | Maximum length of the concatenated service lists contained in MBMS MODIFIED SERVICES INFORMATION and the MBMS UNMODIFIED SERVICES INFORMATION messages defined in ref. [16] |

### 9.2.2.97 RLC Sequence Number

This parameter indicates the RLC Sequence Number.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RLC Sequence Number | | | INTEGER (0..127) | |

### 9.2.2.98 Time Stamp

This parameter indicates the Time Stamp used for Inter-RNC MBMS synchronisation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Time Stamp | | | INTEGER (0..9999) | Units: 10ms |

### 9.2.2.99 HS-DSCH Preconfiguration Info

The *HS-DSCH Preconfiguration Info* IE provides information of the target cell preconfiguration in the DRNS as defined in [18].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Sets of HS-SCCH Codes** | | 1…*<maxnoofHSDSCH>* | | Index 1 refers to the serving HS-DSCH cell Index 2…*<maxnoofHSDSCH>* refer to secondary serving HS-DSCH cells in the order as listed in 9.2.2.100 HS-DSCH Preconfiguration Setup. Max index is 2 in this 3GPP release. | – | |
| **> HS-SCCH Preconfigured Codes** | | 1..<maxnoofHSSCCHcodes> | | | – | |
| >> Code Number | M | | INTEGER (0..127) | | – | |
| > HS-DSCH-RNTI | M | | 9.2.1.31J | | – | |
| > HS-PDSCH And HS-SCCH Scrambling Code | M | | DL Scrambling Code 9.2.2.11 | | – | |
| >SixtyfourQAM DL Support Indicator | O | | 9.2.1.123 | | – | |
| > SixtyfourQAM DL Usage Indicator | O | | 9.2.2.79B | | – | |
| > HS-DSCH TB Size Table Indicator | O | | 9.2.2.19G | | – | |
| > MIMO Information Response | O | | 9.2.2.78 | Applicable for multicarrier mode of operation. | YES | ignore |
| HARQ Memory Partitioning | M | | 9.2.1.116 | | – | |
| E-DCH FDD DL Control Channel Information | O | | 9.2.2.4D | For the primary UL frequency in Dual-cell E-DCH mode of operation. | – | |
| HARQ Preamble Mode Activation Indicator | O | | 9.2.2.58 | | – | |
| MIMO Information Response | O | | 9.2.2.78 | Only applicable for MIMO in singe carrier mode of operation. Shall be ignored in multicarrier mode of operation. | – | |
| Continuous Packet Connectivity HS-SCCH less Information Response | O | | 9.2.2.75 | | – | |
| Power Offset For S-CPICH for MIMO | O | | 9.2.2.104 | | YES | ignore |
| **Additional E-DCH Preconfiguration Information** | | *0..<maxnoofEDCH-1>* | | For E-DCH on multiple frequencies in this DRNS. E-DCH on Secondary uplink frequency – max 1 in this 3GPP release. Index 1 correspond to the secondary serving HS-DSCH cells with index 2 in the IE *Sets of HS-SCCH Codes*. The list is | EACH | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | in the order as listed in 9.2.2.100 HS-DSCH Preconfiguration Setup. | | |
| >E-DCH FDD DL Control Channel Information | M | | 9.2.2.4D | For the secondary UL frequency In Dual-cell E-DCH mode of operation. | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofHSSCCHcodes* | Maximum number of HS-SCCH codes |
| *maxnoofHSDSCH* | Maximum number of Primary Serving plus Secondary Serving HS-DSCH cells for one UE |
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

## 9.2.2.100 HS-DSCH Preconfiguration Setup

The *HS-DSCH Preconfiguration Setup* IE indicates that the DRNS shall preconfigure set(s) of HS-SCCH codes and may contain a list of secondary serving HS-DSCH cells to be preconfigured for Enhanced Service Cell Change. The Cell Change procedure for Dual Cell operation is described in [63]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **MAC-hs/ehs reset scheme** | M | | ENUMERATED (Always, Inter NodeB Change) | MAC-hs/ehs reset handling at enhanced HS serving cell change:<br>"Always" means always reset<br>"Inter NodeB Change" means Only reset at inter Node B cell change | – | |
| HS-DSCH Physical Layer Category | M | | 9.2.1.30Oa | | – | |
| MAC-hs Reordering Buffer Size for RLC-UM | M | | 9.2.1.34Ab | | – | |
| **Secondary Cells** | | 0..<*maxnoofHSDSCH-1*> | | Preconfigured secondary serving HS-DSCH cell. *maxnoofHSDSCH-1* is max 1 in this 3GPP release. | – | |
| >Secondary C-ID | M | | 9.2.1.9 | C-ID of the preconfigured secondary serving HS-DSCH cell | – | |
| >Num Secondary HS-SCCH Codes | O | | INTEGER (1..*maxnoofHSSCCHcodes*) | For the secondary serving HS-DSCH cell | – | |
| >Sixtyfour QAM Usage Allowed Indicator | O | | 9.2.2.79A | For the secondary serving HS-DSCH cell | – | |
| >MIMO Activation Indicator | O | | 9.2.1.134 | For the secondary serving HS-DSCH cell | YES | ignore |
| >E-DCH Indicator | O | | NULL | The secondary serving HS-DSCH cell shall be pre-configured with E-DCH. | YES | ignore |
| Num Primary HS-SCCH Codes | O | | INTEGER (1.. *maxnoofHSSCCHcodes*) | For the primary serving HS-DSCH cell | – | |
| HARQ Preamble Mode | O | | 9.2.1.134 | | – | |
| MIMO Activation Indicator | O | | 9.2.1.134 | In multicarrier mode of operation the IE is for the serving HS-DSCH cell | – | |
| HS-DSCH MAC-d PDU Size Format | O | | 9.2.1.30OC | If not present, "Indexed MAC-d PDU Size" shall be assumed. | – | |
| Sixtyfour QAM Usage Allowed Indicator | O | | 9.2.2.79A | For the serving HS-DSCH cell | – | |
| UE with enhanced HS-SCCH support indicator | O | | NULL | UE supports enhanced HS-SCCH functionality:<br>- UE supports different HS-SCCH in consecutive TTIs and,<br>- in HS-SCCH-less operation mode the UE supports HS-SCCH orders | – | |
| Continuous Packet Connectivity HS-SCCH less Information | O | | 9.2.2.74 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| UE Support Indicator Extension | O | | 9.2.2.103 | | YES | ignore |
| Power Offset For S-CPICH for MIMO Request Indicator | O | | 9.2.2.105 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE |
| *maxnoofHSSCCHcodes* | Maximum number of HS-SCCH codes |

## 9.2.2.101 Secondary Serving Cell List

This *Secondary Serving Cell List* IE identifies the possible secondary serving HS-DSCH cells for a Multi Cell/Dual-Band capable cell that is able to serve as a serving HS-DSCH cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Possible Secondary Serving Cell List** | | *1..<maxnoofHSDSCH-1>* | | For secondary serving HS-DSCH cell. |
| >Possible Secondary Serving Cell | M | | C-ID 9.2.1.9 | |

| Range bound | Explanation |
|---|---|
| *maxnoofHSDSCH-1* | Maximum number of Secondary Serving HS-DSCH cells for one UE. |

## 9.2.2.102 Minimum Reduced E-DPDCH Gain Factor

The minimum gain factor ($\beta_{ed,k,reduced,min}$) defined in [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Minimum Reduced E-DPDCH Gain Factor | | | ENUMERATED (8/15, 11/15, 15/15, 21/15, 30/15, 42/15, 60/15, 84/15, ...) | |

## 9.2.2.103 UE Support Indicator Extension

The *UE Support Indicator Extension* IE is used to indicate the support level in the UE for optional HSDPA functions to the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE support indicator extension | | | BIT STRING (32) | Each bit indicates whether the UE supports a particular HSDPA function or not. The value 1 of a bit indicates that the corresponding functionality is supported in the UE and value 0 indicates that the corresponding functionality is not supported in the UE. Each bit is defined as follows:<br>the first bit: Different HS-SCCH In Consecutive TTIs Support Indicator,<br>the second bit: HS-SCCH orders in HS-SCCH-less Operation Support Indicator.<br><br>Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

### 9.2.2.104 Power Offset For S-CPICH for MIMO

The *Power Offset For S-CPICH for MIMO* IE indicates the the relative transmit power of the S-CPICH compared to the primary CPICH transmit power, when S-CPICH is used as a phase reference for a second transmit antenna in MIMO mode [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Offset For S-CPICH for MIMO | | | INTEGER(-6 .. 0) | Offset in dB |

### 9.2.2.105 Power Offset For S-CPICH for MIMO Request Indicator

The *Power Offset For S-CPICH for MIMO Request Indicator* IE is present when the SRNC needs the DRNS to supply, if possible, the *Power Offset For S-CPICH for MIMO* IE when S-CPICH is used as a phase reference for a second transmit antenna in MIMO mode [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Offset For S-CPICH for MIMO Request Indicator | | | NULL | |

### 9.2.2.106 Single Stream MIMO Activation Indicator

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Single Stream MIMO Activation Indicator | M | | NULL | |

### 9.2.2.107 Single Stream MIMO Mode Indicator

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Single Stream MIMO Mode Indicator | | | ENUMERATED (Activate, Deactivate) | |

### 9.2.2.108 HS-DSCH MAC-ehs Format

Void.

### 9.2.2.109 Activation Information

The *Activation Information* IE defines the local activation state of the secondary uplink frequency of the UE in Dual Cell E-DCH operation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Activation Information** | | *1..<maxnoofEDCH-1>* | For secondary E-DCH. Max 1 in this 3GPP release. | |
| >Uu Activation State | M | | ENUMERATED (Activated, De-activated, ...) | The activation state of the secondary UL frequency |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCH-1* | Maximum number of uplink frequencies -1 for E-DCH for one UE |

### 9.2.2.110 Additional E-DCH FDD Setup Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **UL DPCH Information** | | *1* | | | – | |
| >UL Scrambling Code | M | | 9.2.2.53 | | – | |
| >UL SIR Target | O | | UL SIR 9.2.1.69 | | – | |
| Additional E-DCH RL Specific Information To Setup | M | | 9.2.2.115 | | – | |
| Additional E-DCH FDD Information | O | | 9.2.2.112 | | – | |
| **F-DPCH Information** | | *1* | | | – | |
| >FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.21A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.21a | | – | |
| >F-DPCH Slot Format Support Request | O | | 9.2.2.86 | | – | |
| Multicell E-DCH Information | O | | 9.2.2.114 | | YES | ignore |

### 9.2.2.111 Additional E-DCH Configuration Change Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **UL DPCH Information** | | *0..1* | | | – | |
| >UL Scrambling Code | O | | 9.2.2.53 | | – | |
| >UL SIR Target | O | | UL SIR 9.2.1.69 | | – | |
| Additional E-DCH RL Specific Information To Add | O | | 9.2.2.116 | Used when the E-DCH RL to add does not exist in the current UE context on the secondary UL frequency. | – | |
| Additional E-DCH RL Specific Information To Modify | O | | 9.2.2.117 | Used when an existing E-DCH RL on the secondary UL frequency is modified. | – | |
| Additional E-DCH FDD Information To Modify | O | | Additional E-DCH FDD Information 9.2.2.112 | Used to modify the current additional E-DCH configuration with or without a new RL added in this procedure | – | |
| **F-DPCH Information** | | *0..1* | | | – | |
| >FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.21A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.21a | | – | |
| >F-DPCH Slot Format Support Request | O | | 9.2.2.86 | | – | |
| Multicell E-DCH Information | O | | 9.2.2.114 | | YES | ignore |

### 9.2.2.112 Additional E-DCH FDD Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Additional E-DCH FDD Information** | | | | |
| >HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | |
| >E-DCH Maximum Bitrate | O | | 9.2.2.4MG | |
| >E-DCH Processing Overload Level | O | | 9.2.1.95 | |
| >E-DCH Minimum Set E-TFCI | O | | INTEGER (0..127) | For the concept of “E-DCH Minimum Set of TFCs” see [41] and [16]. |

### 9.2.2.113 Multicell E-DCH Transport Bearer Mode

This parameter indicates the Multicell E-DCH Transport Bearer Mode. For *Multicell E-DCH Transport Bearer Mode* = "Separate Iur Transport Bearer Mode" the Mac-d flows from each carrier uses different Iur transport bearers, for *Multicell E-DCH Transport Bearer Mode* = "UL Flow Multiplexing Mode" the Mac-d flows received on the different carriers in the DRNS is multiplexed on one Iur transport bearer (per Mac-d flow). The SRNC should apply the stored cell capabilities for the cell on primary UL frequency for the capabilities related to Multicell E-DCH Transport Bearer Mode.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Multicell E-DCH Transport Bearer Mode | | | ENUMERATED (Separate Iur Transport Bearer Mode, UL Flow Multiplexing Mode) | |

### 9.2.2.114 Multicell E-DCH Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Power Balancing Information | O | | 9.2.2.10A | |
| Minimum Reduced E-DPDCH Gain Factor | O | | 9.2.2.102 | |
| Secondary UL Frequency Activation State | O | | ENUMERATED (Activated, Deactivated,...) | |
| F-DPCH Slot Format | O | | 9.2.2.85 | |
| Common DL Reference Power | O | | DL power 9.2.1.21A | Power on F-DPCH |

### 9.2.2.115 Additional E-DCH RL Specific Information To Setup

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH Additional RL Specific Information** | | *1..<maxnoofEDCHRLs>* | | | – | |
| >E-DCH Additional RL ID | M | | RL ID 9.2.1.49 | | – | |
| >C-ID | O | | 9.2.1.6 | | – | |
| >First RLS Indicator | M | | 9.2.2.16A | | – | |
| >Propagation Delay | O | | 9.2.2.33 | | – | |
| >Initial DL Tx Power | O | | DL Power 9.2.1.21A | | | |
| >Primary CPICH Ec/No | O | | 9.2.2.32 | | – | |
| >E-AGCH Power Offset | O | | 9.2.2.61 | | – | |
| >E-RGCH Power Offset | O | | 9.2.2.62 | | – | |
| >E-HICH Power Offset | O | | 9.2.2.63 | | – | |
| >Additional E-DCH MAC-d Flow Specific Information | O | | 9.2.2.118 | | – | |
| >Multicell E-DCH RL Specific Information | O | | 9.2.2.119 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHRLs* | Maximum number of E-DCH RLs for one UE |

### 9.2.2.116 Additional E-DCH RL Specific Information To Add

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH Additional RL Specific Information To Add** | | *1..<maxnoofEDCHRLs>* | | | – | |
| >E-DCH Additional RL ID | M | | RL ID 9.2.1.49 | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >Primary CPICH Ec/No | O | | 9.2.2.32 | | – | |
| >E-AGCH Power Offset | O | | 9.2.2.61 | | – | |
| >E-RGCH Power Offset | O | | 9.2.2.62 | | – | |
| >E-HICH Power Offset | O | | 9.2.2.63 | | – | |
| >Additional E-DCH MAC-d Flow Specific Information | O | | 9.2.2.118 | | – | |
| >Multicell E-DCH RL Specific Information | O | | 9.2.2.119 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHRLs* | Maximum number of E-DCH RLs for one UE |

### 9.2.2.117 Additional E-DCH RL Specific Information To Modify

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH Additional RL Specific Information to Modify** | | *1..<maxnoofEDCHRLs>* | | | – | |
| >E-DCH Additional RL ID | M | | RL ID 9.2.1.49 | | – | |
| >E-AGCH Power Offset | O | | 9.2.2.61 | | – | |
| >E-RGCH Power Offset | O | | 9.2.2.62 | | – | |
| >E-HICH Power Offset | O | | 9.2.2.63 | | – | |
| >Additional E-DCH MAC-d Flow Specific Information | O | | 9.2.2.118 | | – | |
| >Multicell E-DCH RL Specific Information | O | | 9.2.2.119 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHRLs* | Maximum number of E-DCH RLs for one UE |

### 9.2.2.118 Additional E-DCH MAC-d Flow Specific Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Additional E-DCH MAC-d Flow Specific Information** | | *1..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | |
| >Binding ID | O | | 9.2.1.3 | |
| >Transport Layer Address | O | | 9.2.1.62 | |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

### 9.2.2.119 Multicell E-DCH RL Specific Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Extended Propagation Delay | O | | 9.2.2.33a | |
| Enhanced Primary CPICH Ec/No | O | | 9.2.2.13I | |
| DL Reference Power | O | | DL power 9.2.1.21A | |
| Phase Reference Update Indicator | O | | 9.2.2.27B | |
| E-DCH DL Control Channel Grant | O | | NULL | |

### 9.2.2.120 Additional E-DCH FDD Information Response

The *Additional E-DCH FDD Information Response* IE provides information for new E-DCH radio links on the secondary UL frequency.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Additional E-DCH RL Information Response** | | *1..<maxnoofEDCHRLs>* | | |
| >E-DCH Additional RL ID | M | | RL ID 9.2.1.49 | |
| >Received Total Wide Band Power | M | | 9.2.2.35A | |
| >DL Power Balancing Activation Indicator | O | | 9.2.2.10B | |
| >RL Set ID | M | | 9.2.2.35 | |
| >E-DCH RL Set ID | M | | RL Set ID 9.2.2.35 | |
| >E-DCH FDD DL Control Channel Information | M | | 9.2.2.4D | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | |
| **>Additional E-DCH MAC-d Flow Specific Information Response** | | *0..<maxnoofEDCHMACdFlows>* | | |
| >>E-DCH MAC-d Flow ID | M | | 9.2.1.91 | |
| >>Binding ID | O | | 9.2.1.3 | |
| >>Transport Layer Address | O | | 9.2.1.62 | |
| >HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | |
| >Primary Scrambling Code | O | | 9.2.1.45 | |
| >UL UARFCN | O | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] |
| >DL UARFCN | O | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] |
| >Primary CPICH Power | M | | 9.2.1.44 | |
| >PC Preamble | M | | 9.2.2.27a | |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.32A | |
| >Secondary CPICH Information | O | | 9.2.2.38A | |
| >F-DPCH Slot Format | O | | 9.2.2.85 | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHRLs* | Maximum number of E-DCH RLs for one UE |

## 9.2.2.121 Additional Modified E-DCH FDD Information Response

The *Additional Modified E-DCH RL Information Response* IE provides information for RLs on the secondary UL frequency that has been modified and existied in the UE Context configuration before the reconfiguration procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Additional Modified E-DCH RL Information Response** | | *1..<maxnoofEDCHRLs>>* | | |
| >E-DCH Additional RL ID | M | | RL ID 9.2.1.49 | |
| >DL Power Balancing Updated Indicator | O | | 9.2.2.10D | |
| >E-DCH FDD DL Control Channel Information | O | | 9.2.2.4D | |
| **>Additional E-DCH MAC-d Flow Specific Information Response** | | *0..<maxnoofEDCHMACdFlows>* | | |
| >>E-DCH MAC-d Flow ID | M | | 9.2.1.91 | |
| >>Binding ID | O | | 9.2.1.3 | |
| >>Transport Layer Address | O | | 9.2.1.62 | |
| >HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | |
| >Maximum Uplink SIR | O | | Uplink SIR 9.2.1.69 | |
| >Minimum Uplink SIR | O | | Uplink SIR 9.2.1.69 | |
| >Maximum DL TX Power | O | | DL Power 9.2.1.21A | |
| >Minimum DL TX Power | O | | DL Power 9.2.1.21A | |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.32A | |
| >Secondary CPICH Information Change | O | | 9.2.2.38B | |
| >F-DPCH Slot Format | O | | 9.2.2.85 | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHRLs* | Maximum number of E-DCH RLs for one UE |

## 9.2.2.122 Additional E-DCH FDD Update Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HARQ Process Allocation For 2ms Scheduled Transmission Grant | O | | HARQ Process Allocation for 2ms TTI 9.2.2.4O | |
| **Additional E-DCH DL Control Channel Change Information** | | *0..<maxnoofEDCHRLs>* | | |
| > E-DCH Additional RL ID | M | | RL ID 9.2.1.49 | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHRLs* | Maximum number of E-DCH RLs for one UE |

### 9.2.2.123 Cell Capability Container Extension FDD

The *Cell Capability Container Extension FDD* IE is an extension to the *Cell Capability Container FDD* IE and indicates the cell capability in the same way as *Cell Capability Container Extension FDD* IE.

The cell capability of multi-cell related functions may depend on that the cell also is multi-cell capable (adjacent carrier). These capability indicators shall be ignored if the Multi Cell Support Indicator in the *Cell Capability Container FDD* IE is set to 0. These support indicators are indicated in the table below with /Multi-cell/. Support indicators marked /Multi-cell/ indicates the support regardless of the supported multi-cell type in a multicell configuration: supported multi-cell type is - both serving HS-DSCH and secondary serving HS-DSCH, - secondary serving HS-DSCH or - serving HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Capability Container Extension FDD | | | BIT STRING (128) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.<br>The first bit: Cell Specific Tx Diversity Handling For Multi Cell Operation Support Indicator, /Multi-cell/.<br>The second bit: Multi Cell and MIMO Support Indicator, /Multi-cell/.<br>The third bit: Multi Cell and Single Stream MIMO Support Indicator, /Multi-cell/.<br>The fourth bit: Multi Cell E-DCH Support Indicator, /Multi-cell/.<br>This bit shall be ignored by the SRNC if the fifth bit: Separate Iur Transport Bearer Support Indicator = "0" and the sixth bit: E-DCH UL Flow Multiplexing Support Indicator = "0"<br>The fifth bit: Separate Iur Transport Bearer Support Indicator, /Multi-cell/.<br>This bit shall be ignored by the SRNC if the fourth bit: Multi Cell E-DCH Support Indicator = "0"<br>The sixth bit: E-DCH UL Flow Multiplexing Support Indicator, /Multi-cell/.<br>This bit shall be ignored by the SRNC if the fourth bit: Multi Cell E-DCH Support Indicator = "0"<br><br>Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. Note that Reserved bits are not considered as a spare bit. They shall however be set to 0 by the transmitter and shall be ignored by the receiver. |

### 9.2.2.124 Non-Serving RL Preconfiguration Setup

The *Non-Serving RL Preconfiguration Setup* IE indicates that the DRNS may preconfigure E-DCH DL Code Information configured for new non-serving RL for Enhanced Service Cell Change and contains the information for the location of new serving RL after the Enhanced Serving Cell Change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *new Serving RL* | M | | | | – | |
| *>New Serving RL in the DRNS* | | | NULL | | – | |
| *>New Serving RL Not in the DRNS* | | | NULL | | – | |
| *>New Serving RL in the DRNS or New Serving RL Not in the DRNS* | | | NULL | | – | |
| Additional E-DCH Non-Serving RL Preconfiguration Setup | O | | NULL | | YES | ignore |

### 9.2.2.125 Non-Serving RL Preconfiguration Info

The *Non-Serving RL Preconfiguration Info* IE provides information for the new non-serving RL after Enhanced Serving Cell Change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| New non-serving RL E-DCH FDD DL Control Channel Information A | O | | 9.2.2.4D E-DCH FDD DL Control Channel Information | E-DCH FDD DL Control Channel Information for non-serving RL in Serving E-DCH RLS | – | |
| New non-serving RL E-DCH FDD DL Control Channel Information B | O | | 9.2.2.4D E-DCH FDD DL Control Channel Information | E-DCH FDD DL Control Channel Information for non-serving RL in non serving E-DCH RLS in in case serving RL is in the DRNS | – | |
| New non-serving RL E-DCH FDD DL Control Channel Information C | O | | 9.2.2.4D E-DCH FDD DL Control Channel Information | E-DCH FDD DL Control Channel Information for non-serving RL in case serving RL is not in the DRNS | – | |
| **Additional E-DCH New non-serving RL E-DCH FDD DL Control Channel Information** | | *0..<maxnoofEDCH-1>* | | E-DCH on Secondary uplink frequency - max 1 in this 3GPP release. | EACH | ignore |
| >New non-serving RL E-DCH FDD DL Control Channel Information A | O | | 9.2.2.13Dc E-DCH FDD DL Control Channel Information | E-DCH FDD DL Control Channel Information for Additional non-serving RL in Serving E-DCH RLS | – | |
| >New non-serving RL E-DCH FDD DL Control Channel Information B | O | | 9.2.2.13Dc E-DCH FDD DL Control Channel Information | E-DCH FDD DL Control Channel Information for Additional non-serving RL in non serving E-DCH RLS in case Additional serving RL is in the DRNS | – | |
| >New non-serving RL E-DCH FDD DL Control Channel Information C | O | | 9.2.2.13Dc E-DCH FDD DL Control Channel Information | E-DCH FDD DL Control Channel Information for Additional non-serving RL in case Additional | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | serving RL is not in the DRNS | | |

## 9.2.3 TDD Specific Parameters

This subclause contains parameters that are specific to TDD.

### 9.2.3.a Alpha Value

Used to support signalling of cell specific Alpha Value to SRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Alpha Value | | | ENUMERATED(0, 1/8, 2/8, 3/8, 4/8, 5/8, 6/8, 7/8, 1) | |

### 9.2.3.A Block STTD Indicator

Void.

### 9.2.3.1 Burst Type

Void.

### 9.2.3.1a Cell Capability Container TDD

The Cell Capability Container TDD indicates which functionalities a 3.84Mcps TDD cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Capability Container TDD | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.<br>The first bit: Delayed Activation Support Indicator.<br>The second bit: HS-DSCH Support Indicator.<br>The third bit: DSCH Support Indicator.<br>The fourth bit: Flexible MAC-d PDU Size Support Indicator.<br>The fifth: MBMS Support Indicator.<br>Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

### 9.2.3.1b Cell Capability Container TDD LCR

The Cell Capability Container TDD LCR indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Capability Container TDD LCR | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.<br>The first bit: Delayed Activation Support Indicator.<br>The second bit: HS-DSCH Support Indicator.<br>The third bit: DSCH Support Indicator.<br>The fourth bit: Flexible MAC-d PDU Size Support Indicator.<br>Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

### 9.2.3.2 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CCTrCH ID | | | INTEGER (0..15) | |

### 9.2.3.2A DCH TDD Information

The *DCH TDD Information* IE provides information for DCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DCH Information** | | *1..<maxnoofDCHs>* | | | – | |
| >Payload CRC Presence Indicator | M | | 9.2.1.42 | | – | |
| >UL FP Mode | M | | 9.2.1.67 | | – | |
| >ToAWS | M | | 9.2.1.58 | | – | |
| >ToAWE | M | | 9.2.1.57 | | – | |
| **>DCH Specific Info** | | *1..<maxnoofDCHs>* | | | – | |
| >>DCH ID | M | | 9.2.1.16 | | – | |
| >>CCTrCH ID | M | | 9.2.3.2 | UL CCTrCH in which the DCH is mapped | – | |
| >>CCTrCH ID | M | | 9.2.3.2 | DL CCTrCH in which the DCH is mapped | – | |
| >>TrCH Source Statistics Descriptor | M | | 9.2.1.65 | | – | |
| >>Transport Format Set | M | | 9.2.1.64 | For the UL. | – | |
| >>Transport Format Set | M | | 9.2.1.64 | For the DL. | – | |
| >>BLER | M | | 9.2.1.4 | For the UL. | – | |
| >>BLER | M | | 9.2.1.4 | For the DL. | – | |
| >>Allocation/Retention Priority | M | | 9.2.1.1 | | – | |
| >>Frame Handling Priority | M | | 9.2.1.29 | | – | |
| >>QE-Selector | C-CoorDCH | | 9.2.1.46A | | – | |
| >>Guaranteed Rate Information | O | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >>Unidirectional DCH Indicator | O | | 9.2.1.68B | | YES | reject |
| >TNL QoS | O | | 9.2.1.56A | | YES | ignore |

| Condition | Explanation |
|---|---|
| CoorDCH | The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the *DCH Specific Info* IE is greater than 1). |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |

## 9.2.3.2B DCH TDD Information Response

Void

## 9.2.3.2C DL Timeslot Information

The *DL Timeslot Information* IE provides information on the time slot allocation for a DL DPCH at 3.84Mcps.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DL Timeslot Information** | | *1..<maxnoOfTS>* | | | – | |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | – | |
| >TFCI Presence | M | | 9.2.1.55 | | – | |
| >DL Code Information | M | | TDD DL Code Information 9.2.3.8C | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofTSs* | Maximum number of Timeslots for a UE. |

## 9.2.3.2D DL Time Slot ISCP Info

The *DL Time Slot ISCP Info* IE gives interference level for each DL time slot within the Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DL Time Slot ISCP Info** | | *1..<maxnoofDLts>* | | | – | |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >DL Timeslot ISCP | M | | 9.2.3.12 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofDLts* | Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD. |

## 9.2.3.2E DL Timeslot Information LCR

The *DL Timeslot Information LCR* IE provides information for DL Timeslot to be established for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DL Timeslot Information LCR** | | *1 .. <maxnoofDLtsLCR>* | | | – | |
| >Time Slot LCR | M | | 9.2.3.12a | | – | |
| >Midamble Shift LCR | M | | 9.2.3.4C | | – | |
| >TFCI Presence | M | | 9.2.1.57 | | – | |
| >DL Code Information LCR | M | | TDD DL Code Information LCR 9.2.3.8D | | – | |
| >Maximum DL TX Power | O | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >Minimum DL TX Power | O | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofDLtSLCR* | Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD. |

### 9.2.3.2F DL Time Slot ISCP Info LCR

The D*L Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DL Time Slot ISCP Info LCR** | | *1 .. <maxnoofULtsLCR>* | | | – | |
| >Time Slot LCR | M | | 9.2.3.12a | | – | |
| >DL Timeslot ISCP | M | | 9.2.3.12 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofULtsLCR* | Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD |

### 9.2.3.3 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DPCH ID | | | INTEGER (0..239) | |

### 9.2.3.3a DSCH TDD Information

The *DSCH TDD Information* IE provides information for DSCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DSCH TDD Information** | | *1..<maxnoofDSCHs>* | | | – | |
| >DSCH ID | M | | 9.2.3.3ae | | – | |
| >CCTrCH ID | M | | 9.2.3.2 | DL CCTrCH in which the DSCH is mapped. | – | |
| >TrCH Source Statistics Descriptor | M | | 9.2.1.65 | | – | |
| >Transport Format Set | M | | 9.2.1.64 | | – | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | – | |
| >Scheduling Priority Indicator | M | | 9.2.1.51A | | – | |
| >BLER | M | | 9.2.1.4 | | – | |
| >Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >TNL QoS | O | | 9.2.1.56A | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofDSCHs* | Maximum number of DSCHs for one UE. |

## 9.2.3.3aa HS-DSCH TDD Information

The *HS-DSCH TDD Information* IE is used for initial addition of HS-DSCH information to a UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-DSCH MAC-d Flows Information | M | | 9.2.1.30OA | | – | |
| **UE Capabilities Information** | | 1 | | | – | |
| >HS-DSCH Physical Layer Category | M | | 9.2.1.30Oa | | – | |
| >1.28 Mcps TDD uplink physical channel capability | O | | 9.2.3.10D | Applicable to 1.28Mcps TDD only | YES | ignore |
| >Number of Supported Carriers | O | | ENUMERATED ( One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Tree-six carrier, Six-six carrier, ...) | Applicable to 1.28Mcps TDD only This IE indicates the number of carrier that UE can support at the same time,where " One-three carrier" means the number of supported carrier is one for the uplink,and three for the downlink. | YES | reject |
| >Multi-carrier HS-DSCH Physical Layer Category | O | | 9.2.1.30Oa | Applicable to 1.28Mcps TDD only | YES | ignore |
| >MIMO SF Mode Supported For HS-PDSCH dual stream | O | | Enumerated (SF1, SF1/SF16) | Applicable to 1.28Mcps TDD only | YES | ignore |
| >UE TS0 Capability LCR | O | | ENUMERATED (TS0 Capable, TS0 Non-Capable) | Applicable to 1.28Mcps TDD only | YES | ignore |
| MAC-hs Reordering Buffer Size for RLC-UM | M | | 9.2.1.34Ab | | – | |
| TDD ACK NACK Power Offset | M | | 9.2.3.7I | | – | |
| HS-DSCH MAC-d PDU Size Format | O | | 9.2.1.30OC | If not present, "Indexed MAC-d PDU Size" shall be used. | YES | reject |
| HS-SICH SIR Target | O | | UL SIR 9.2.1.69 | Applicable to 1.28Mcps TDD only | YES | ignore |
| HS-SICH TPC step size | O | | 9.2.3.10a | Applicable to 1.28Mcps TDD only | YES | ignore |
| TSN-Length | O | | 9.2.3.3ai | Applicable for 1.28Mcps TDD when using multiple frequencies | YES | reject |
| MIMO Activation Indicator | O | | 9.2.1.134 | | YES | reject |

### 9.2.3.3ab HS-DSCH TDD Information Response

The *HS-DSCH TDD Information Response* IE provides information for HS-DSCH that have been established or modified. It also provides additional HS-DSCH information determined within the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-DSCH MAC-d Flow Specific Information Response** | | *0..<maxnoofMACdFlows>* | | | – | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.30O | | – | |
| >Binding ID | O | | 9.2.1.3 | | – | |
| >Transport Layer Address | O | | 9.2.1.62 | | – | |
| >HS-DSCH Initial Capacity Allocation | O | | 9.2.1.30Na | | – | |
| **HS-SCCH Specific Information Response** | | *0..<maxnoofHSSCCHcodes>* | | Not applicable to 1.28 Mcps TDD or 7.68Mcps TDD | GLOBAL | reject |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | – | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | – | |
| **>HS-SICH Information** | | *1* | | | – | |
| >>HS SICH ID | M | | 9.2.3.3ad | | – | |
| >>Time Slot | M | | 9.2.1.56 | | – | |
| >>Midamble Shift And Burst Type | M | | 9.2.3.4 | | – | |
| >>TDD Channelisation Code | M | | 9.2.3.8 | | – | |
| **HS-SCCH Specific Information Response LCR** | | *0..<maxnoofHSSCCHcodes>* | | Not applicable to 3.84 Mcps TDD or 7.68Mcps TDD | GLOBAL | reject |
| >Time Slot LCR | M | | 9.2.3.12a | | – | |
| >Midamble shift LCR | M | | 9.2.3.4C | | – | |
| >First TDD Channelisation Code | M | | TDD Channelisation Code 9.2.3.8 | | – | |
| >Second TDD Channelisation Code | M | | TDD Channelisation Code 9.2.3.8 | | – | |
| **>HS-SICH Information LCR** | | *1* | | | – | |
| >>HS SICH ID | M | | 9.2.3.3ad | | – | |
| >>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>Midamble shift LCR | M | | 9.2.3.4C | | – | |
| >>TDD Channelisation Code | M | | 9.2.3.8 | | – | |
| >Used Frequency | O | | UARFCN 9.2.1.66 | Applicable for 1.28Mcps TDD when using multiple frequencies. This IE indicates the frequency which is actually used by the HS-SCCH. | YES | reject |
| >UARFCN | O | | 9.2.1.66 | Corresponds to Nt (3GPP TS 25.105) Applicable | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | | for 1.28Mcps TDD when using multiple frequencies. See note1 below | | |
| **HS-SCCH Specific Information Response 7.68 Mcps** | | *0..<maxnoofHSSCCHcodes>* | | Applicable to 7.68 Mcps TDD only | YES | ignore |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | | – | |
| >TDD Channelisation Code 7.68Mcps | M | | 9.2.3.25 | | – | |
| **>HS-SICH Information** | | *1* | | | – | |
| >>HS SICH ID | M | | 9.2.3.3ad | | – | |
| >>Time Slot | M | | 9.2.1.56 | | – | |
| >>Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | | – | |
| >>TDD Channelisation Code 7.68Mcps | M | | 9.2.3.25 | | – | |
| **HS-PDSCH Timeslot Specific Information Response** | | *0..<maxnoofDLts>* | | Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD. | GLOBAL | reject |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | – | |
| **HS-PDSCH Timeslot Specific Information Response LCR** | | *0..<maxnoofDLtsLCR>* | | Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. | GLOBAL | reject |
| >Time Slot LCR | M | | 9.2.3.12a | | – | |
| >Midamble Shift LCR | M | | 9.2.3.4C | | – | |
| **HS-PDSCH Timeslot Specific Information Response 7.68Mcps** | | *0..<maxnoofDLts>* | | Applicable to 7.68Mcps TDD only. | YES | Ignore |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | | – | |
| HARQ Memory Partitioning | O | | 9.2.1.116 | | – | |
| User Plane Congestion Fields Inclusion | O | | 9.2.1.70C | | YES | ignore |
| **HS-SCCH Specific Information Response LCR per UARFCN** | | *0..<maxHSDPAFrequency-1>* | | Applicable for 1.28Mcps TDD | GLOBAL | reject |
| **>HS-SCCH Specific Information Response LCR** | | *1..<maxNoOfHSSCCHcodes>* | | | – | |
| >>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>Midamble Shift LCR | M | | 9.2.3.4C | | – | |
| >>First TDD Channelisation Code | M | | TDD Channelisation Code 9.2.3.8 | | – | |
| >>Second TDD Channelisation Code | M | | TDD Channelisation Code 9.2.3.8 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **>>HS-SICH Information LCR** | | *1* | | | – | |
| >>>HS SICH ID | M | | 9.2.3.3ad | | | |
| >>>Time Slot LCR | M | | 9.2.3.12a | | – | |
| >>>Midamble Shift LCR | M | | 9.2.3.4C | | – | |
| >>>TDD Channelisation Code | M | | 9.2.3.8 | | – | |
| >>Used Frequency | O | | UARFCN 9.2.1.66 | Applicable for 1.28Mcps TDD when using multiple frequencies. This IE indicates the frequency which is actually used by the HS-SCCH. | YES | reject |
| >UARFCN | O | | 9.2.1.66 | Corresponds to Nt 3GPP TS 25.105 Applicable for 1.28Mcps TDD when using multiple frequencies. See note 1 below | YES | ignore |
| **>HARQ Memory Partitioning per UARFCN** | | *0..<maxHSDPAFrequency-1>* | | | | |
| >>HARQ Memory Partitioning | O | | 9.2.1.116 | | – | |
| >UARFCN | O | | 9.2.1.66 | Corresponds to Nt 3GPP TS 25.105 Applicable for 1.28Mcps TDD when using multiple frequencies. See note 1 below | YES | ignore |
| >TS0 HS-PDSCH Indication LCR | O | | 9.2.3.74 | 1.28Mcps TDD only | YES | ignore |
| Multi-Carrier number | O | | Integer(1.. *maxHSDPAFrequency*) | Applicable for 1.28Mcps TDD when using multiple frequencies. | YES | ignore |
| MIMO SF Mode for HS-PDSCH dual stream | O | | Enumerated (SF1, SF1/SF16) | Applicable for 1.28Mcps TDD when MIMO is configured | YES | reject |
| MIMO Reference Signal Information | O | 0..<maxNoOfHSSCCHcodes> | | Applicable for 1.28Mcps TDD when MIMO is configured | YES | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >HS-SICH Reference Signal Information | M | | 9.2.3.72 | | YES | |
| Out-of-sync Detection Window | O | | ENUMERATED (40, 80, 160, 320, 640, …) | Unit: ms Applicable to 1.28Mcps TDD. | YES | reject |
| Note 1: This information element is a simplified representation of the ASN.1 description. | | | | | | |

| Range bound | Explanation |
|---|---|
| *maxnoofMACdFlows* | Maximum number of MAC-d flows. |
| *maxnoofHSSCCHcodes* | Maximum number of HS-SCCH codes. |
| *maxnoofDLts* | Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD. |
| *maxnoofDLtsLCR* | Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD. |
| *maxHSDPAFrequency* | Maximum number of Frequency that UE can support HSDPA |

### 9.2.3.3ac HS-DSCH TDD Update Information

The *HS-DSCH TDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| HS-SCCH Code Change Indicator | O | | 9.2.1.30R | | – | |
| TDD ACK NACK Power Offset | O | | 9.2.3.7I | | – | |

### 9.2.3.3ad HS-SICH ID

The HS-SICH ID identifies unambiguously a HS-SICH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS SICH ID | | | INTEGER (0..31) | For 1.28Mcps TDD, the IE is INTEGER (0..255). In ASN.1, it is presented by another IE for the value beyond the 31. |

### 9.2.3.3ae DSCH ID

The DSCH ID is the identifier of an active downlink shared channel. It is unique for each active DSCH among the active DSCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DSCH ID | | | INTEGER (0..255) | |

### 9.2.3.3af DSCH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before new credits are received from the DRNC.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| DSCH Initial Window Size | | | INTEGER (1..255) | Number of MAC-c/sh SDUs: 255 = Unlimited number of MAC-c/sh SDUs. |

## 9.2.3.3ag DSCH Flow Control Information

The *DSCH Flow Control Information* IE provides flow control information for each scheduling priority class for the DSCH FP over Iur.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DSCH Flow Control Information** | | *1..16* | | | – | |
| >DSCH Scheduling Priority | M | | Scheduling Priority Indicator 9.2.1.51A | | – | |
| **>MAC-c/sh SDU Length** | | *1..<maxNb MAC-c/shSDUL ength>* | | | – | |
| >>MAC-c/sh SDU Length | M | | 9.2.1.34 | | – | |
| >DSCH Initial Window Size | O | | 9.2.3.3af | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxNbMAC-c/shSDULength* | Maximum number of different MAC-c/sh SDU lengths. |

## 9.2.3.3ah DSCH-RNTI

DSCH-RNTI is the UE identifier allocated by DRNS to be used over the radio interface by Ues having one or several DSCHs and/or USCHs. It is unique within a cell.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| DSCH-RNTI | | | INTEGER(0. .65535) | |

## 9.2.3.3ai TSN-Length

The IE indicates the TSN length.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TSN-Length | | | ENUMERATED (tsn-6bits, tsn-9bits) | |

## 9.2.3.3A Maximum Number of Timeslots

Defines the maximum number of timeslots the UE has the capability of receiving or transmitting. [3.84Mcps TDD and 7.68Mcps TDD – in a frame] [1.28Mcps TDD – in a subframe]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of Timeslots | | | INTEGER (1..14) | For 1.28Mcps TDD the values 7 through 14 are not used. |

### 9.2.3.3B Maximum Number of UL Physical Channels per Timeslot

Defines the maximum number of physical channels [3.84Mcps TDD and 7.68Mcps TDD – per frame] [1.28Mcps TDD – per subframe] that the UE is capable to transmit.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of UL Physical Channels per Timeslot | | | INTEGER (1..2) | |

### 9.2.3.3C Maximum Number of DL Physical Channels

Defines the maximum number of physical channels [3.84Mcps TDD – per frame] [1.28Mcps TDD – per subframe] that the UE is capable to receive.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of DL Physical Channels | | | INTEGER (1..224) | For 1.28Mcps TDD the values 97 through 224 are not used. |

### 9.2.3.3D Maximum Number of DL Physical Channels per Timeslot

Defines the maximum number of physical channels per timeslot that the UE is capable to receive.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of DL Physical Channels per Timeslot | | | INTEGER (1..16) | |

### 9.2.3.4 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Burst Type* | | | | |
| >*Type 1* | | | | |
| >> Midamble Configuration Burst Type 1 And 3 | M | | ENUMERATED(4, 8, 16) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Default midamble, Common midamble, UE specific midamble) | |
| >>Midamble Shift Long | C-UE | | INTEGER(0..15) | |
| >*Type 2* | | | | |
| >> Midamble Configuration Burst Type 2 | M | | ENUMERATED (3, 6) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Default midamble, Common midamble, UE specific midamble) | |
| >>Midamble Shift Short | C-UE | | INTEGER (0..15) | |
| >*Type 3* | | | | UL only |
| >> Midamble Configuration Burst Type 1 And 3 | M | | ENUMERATED (4, 8, 16) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Default midamble, UE specific midamble) | |
| >>Midamble Shift Long | C-UE | | INTEGER(0..15) | |

| Condition | Explanation |
|---|---|
| UE | The IE shall be present if the *Midamble Allocation Mode* IE is set to "UE-specific midamble". |

### 9.2.3.4A Minimum Spreading Factor

Defines the minimum spreading factor the UE has the capability of receiving or transmitting.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Minimum Spreading Factor | | | INTEGER (1..16) | |

### 9.2.3.4B IPDL TDD parameters

The *IPDL TDD Parameters* IE provides the information for the IPDL Configuration applied in 3.84Mcps TDD mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IP Spacing TDD | M | | ENUMERATED(30,40,50, 70, 100,…) | See [22] |
| IP Start | M | | INTEGER(0..4095) | See [22] |
| IP Slot | M | | INTEGER(0..14) | See [22] |
| IP P-CCPCH | M | | ENUMERATED(Switch off 1 frame, Switch off 2 frames) | See [22] |
| Burst mode parameters | O | | 9.2.1.4B | |

## 9.2.3.4Bb IPDL TDD parameters LCR

The *IPDL TDD Parameters LCR* IE provides the information for the IPDL Configuration applied in 1.28Mcps TDD mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| IP Spacing TDD | M | | ENUMERATED(30,40,50, 70, 100,…) | See [22] |
| IP Start | M | | INTEGER(0..4095) | See [22] |
| IP_Sub | M | | ENUMERATED(First,Second,Both) | See [22] |
| Burst mode parameters | O | | 9.2.1.4B | |

## 9.2.3.4C Midamble shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
  - UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Midamble Allocation Mode | M | | *ENUMERATE*D(Default midamble, Common midamble, UE specific midamble,...) | |
| Midamble Shift Long | C-UE | | INTEGER(0..15) | |
| Midamble Configuration LCR | M | | ENUMERATED (2, 4, 6, 8, 10, 12, 14, 16, ...) | As defined in [12] |

| Condition | Explanation |
|---|---|
| UE | The IE shall be present if the *Midamble Allocation Mode* IE is set to "UE-specific midamble". |

### 9.2.3.4D Neighbouring TDD Cell Information LCR

Void

### 9.2.3.5 Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CCPCH RSCP | | | INTEGER( 0..91) | According to mapping of the non-negative values in ref. [24]. |

### 9.2.3.5a Primary CCPCH RSCP Delta

Primary CCPCH RSCP Delta is the offset used to report the negative reporting range of P-CCPCH RSCP as per [24].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CCPCH RSCP Delta | | | INTEGER( -5..-1,…) | If present, the actual value of Primary CCPCH RSCP = Primary CCPCH RSCP Delta |

### 9.2.3.5A PRACH Midamble

Void.

### 9.2.3.5B RB Identity

The RB Identity is the identifier of a radio bearer. It is unique for each active Radio bearer among the active radio bearers simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| RB Identity | | | INTEGER (0..31) | In line with [16], ch. 10.3.4.11 |

### 9.2.3.6 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [16].

[1.28Mcps TDD- When applied to configure the E-DCH Non-scheduled Grant Information, the Repetition Length represents the number of consecutive Subframes, i.e. 5ms inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [16].]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Repetition Length | | | INTEGER(1..63 ) | |

### 9.2.3.7 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot *K* is assigned to a physical channel in the Radio Frame *J*, it is assigned to the same physical channel also in all the Radio Frames *J+n*Repetition Period* (where *n* is an integer) see ref. [16].

[1.28Mcps TDD- When applied to configure the E-DCH Non-scheduled Grant Information, the Repetition Period represents the number of consecutiveSubframes, i.e. 5ms after which the same assignment scheme of Time Slots to a Physical Channel is repeated see ref. [16].]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Repetition Period | | | ENUMERATED (1,2,4,8,16,32,64) | |

### 9.2.3.7A Rx Timing Deviation

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value. For 1.28Mcps TDD this IE must be set to 0.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Rx Timing Deviation | | | INTEGER (0..127) | As specified in [5], ch. 6.2.7.6 |

### 9.2.3.7B Secondary CCPCH Info TDD

The *Secondary CCPCH Info TDD* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| TFCS | M | | 9.2.1.63 | For the DL. | – | |
| TFCI Coding | M | | 9.2.3.11 | | – | |
| **Secondary CCPCH** | | *0..<maxnoofSCCPCHs>* | | | – | |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | – | |
| >TFCI Presence | M | | 9.2.1.55 | | – | |
| >Secondary CCPCH TDD Code Information | M | | 9.2.3.7C | | – | |
| >TDD Physical Channel Offset | M | | 9.2.3.9 | | – | |
| >Repetition Length | M | | 9.2.3.6 | | – | |
| >Repetition Period | M | | 9.2.3.7 | | – | |
| **FACH** | | 0..maxnooffFACHs | | | – | |
| >TFS | M | | 9.2.1.64 | For the DL. | – | |
| **PCH** | | 0..1 | | | – | |
| >TFS | M | | 9.2.1.64 | For the DL. | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofSCCPCHs* | Maximum number of Secondary CCPCHs per CCTrCH. |
| *maxnoofFACHs* | Maximum number of FACHs mapped onto a Secondary CCPCH. |

### 9.2.3.7C Secondary CCPCH TDD Code Information

The *Secondary CCPCH TDD Code Information* IE provides TDD Channelisation Code information for all SCCPCHs of one Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Secondary CCPCH TDD Code Information** | | *1..<maxnoOfSCCPCHs>* | | | – | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofSCCPCHs* | Maximum number of SCCPCHs for one CCTrCH. |

### 9.2.3.7D Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Special Burst Scheduling | | | *INTEGER*(1, 2, .., 256) | Number of frames between special burst transmissions during DTX |

### 9.2.3.7E Synchronisation Configuration

The Synchronisation Configuration parameters that are used by the DRNS in the Radio Link Failure/Restore procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| N_INSYNC_IND | M | | *INTEGER*(1, 2, .., 256) | |
| N_OUTSYNC_IND | M | | *INTEGER*(1, 2, .., 256) | |
| T_RLFAILURE | M | | ENUMERATED(0, 0.1, 0.2, .., 25.5) | Unit: seconds |

### 9.2.3.7F Secondary CCPCH Info TDD LCR

The *Secondary CCPCH Info TDD LCR* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| TFCS | M | | 9.2.1.63 | For the DL. | – | |
| TFCI Coding | M | | 9.2.3.11 | | – | |
| **Secondary CCPCH** | | *0..<maxnoofSCCPCHs>* | | | – | |
| >Time Slot LCR | M | | 9.2.3.12a | | – | |
| >Midamble Shift LCR | M | | 9.2.3.4C | | – | |
| >TFCI Presence | M | | 9.2.1.55 | | – | |
| >Secondary CCPCH TDD Code Information LCR | M | | 9.2.3.7G | | – | |
| >TDD Physical Channel Offset | M | | 9.2.3.9 | | – | |
| >Repetition Length | M | | 9.2.3.6 | | – | |
| >Repetition Period | M | | 9.2.3.7 | | – | |
| **FACH** | | *0..<maxnoofFACHs>* | | | – | |
| >TFS | M | | 9.2.1.64 | For the DL. | – | |
| **PCH** | | 0..1 | | | – | |
| >TFS | M | | 9.2.1.64 | For the DL. | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofSCCPCHs* | Maximum number of Secondary CCPCHs per CCTrCH. |
| *maxnoofFACHs* | Maximum number of FACHs mapped onto a Secondary CCPCH. |

## 9.2.3.7G Secondary CCPCH TDD Code Information LCR

The *Secondary CCPCH TDD Code Information LCR* IE provides LCR TDD Channelisation Code information for all SCCPCHs of one Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Secondary CCPCH TDD Code Information** | | *1..<maxnoOfSCCPCHs>* | | | – | |
| >TDD Channelisation Code LCR | M | | 9.2.3.8a | | – | |
| >SCCPCH Time Slot Format LCR | M | | TDD DL DPCH Time Slot Format LCR 9.2.3.8E | | – | |

| Range bound | Explanation |
|---|---|
| maxnoofSCCPCHs | Maximum number of SCCPCHs for one CCTrCH. |

## 9.2.3.7H Support of 8PSK

The *Support of 8PSK* IE indicates whether 8PSK is supported or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Support of 8PSK | | | ENUMERATED(supported) | |

### 9.2.3.7I TDD ACK NACK Power Offset

The *TDD ACK NACK Power Offset* IE indicates Power offset used in the UL in the HS-SICH between transmissions carrying positive and negative acknowledgements as per [16].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| TDD ACK NACK Power Offset | | | INTEGER (-7..8,…) | Unit: dB<br>Range: -7..+8 dB<br>Step: 1 dB |

### 9.2.3.8 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8 or 16.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD Channelisation Code | | | ENUMERATED ((1/1), (2/1), (2/2), (4/1), .. (4/4), (8/1), .. (8/8), (16/1), .. (16/16),… ) | |

### 9.2.3.8a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD Channelisation Code | M | | ENUMERATED((1/1), (2/1), (2/2), (4/1),..(4/4), (8/1), .. (8/8), (16/1).. (16/16) ,… ) | |
| Modulation | M | | ENUMERATED(QPSK, 8PSK, …) | Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD |

### 9.2.3.8A TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The *Offset Type* IE = “No Initial Offset” is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The *Offset Type* IE = “Initial Offset” is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offset for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset *mod* Repetition period, see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| | | | | |
| CHOICE *Offset Type* | | | | |
| *>Initial Offset* | | | | |
| >>TDD DPCH Offset Value | M | | INTEGER (0..255) | |
| *>No Initial Offset* | | | | |
| >>TDD DPCH Offset Value | M | | INTEGER (0..63) | |

## 9.2.3.8B TDD DCHs To Modify

The *TDD DCHs To Modify* IE provides information for DCHs to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **TDD DCHs To Modify** | | *1..<maxnoofDCHs>* | | | – | |
| >UL FP Mode | O | | 9.2.1.67 | | – | |
| >ToAWS | O | | 9.2.1.58 | | – | |
| >ToAWE | O | | 9.2.1.57 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| **>DCH Specific Info** | | *1..<maxnoofDCHs>* | | | – | |
| >>DCH ID | M | | 9.2.1.16 | | – | |
| >>CCTrCH ID | O | | 9.2.3.2 | UL CCTrCH in which the DCH is mapped. | – | |
| >>CCTrCH ID | O | | 9.2.3.2 | DL CCTrCH in which the DCH is mapped | – | |
| >>Transport Format Set | O | | 9.2.1.64 | For the UL. | – | |
| >>Transport Format Set | O | | 9.2.1.64 | For the DL. | – | |
| >>Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >>Frame Handling Priority | O | | 9.2.1.29 | | – | |
| >>Guaranteed Rate Information | O | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | O | | 9.2.1.58A | | YES | ignore |
| >TNL QoS | O | | 9.2.1.56A | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for one UE. |

## 9.2.3.8C TDD DL Code Information

The *TDD DL Code Information* IE provides TDD DL Code information for all DPCHs of one DL Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **TDD DL Code Information** | | *1..<maxnoOfDPCHs>* | | | – | |
| >DPCH ID | M | | 9.2.3.3 | | – | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofDPCHs* | Maximum number of DPCHs for one CCTrCH. |

### 9.2.3.8D TDD DL Code Information LCR

The *TDD DL Code Information LCR* IE provides DL Code information for the RL for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **TDD DL Code Information LCR** | | *1 .. <maxnoOfDPCHLCR>* | | | – | |
| >DPCH ID | M | | 9.2.3.5 | | – | |
| >TDD Channelisation Code LCR | M | | 9.2.3.8a | | – | |
| > TDD DL DPCH Time Slot Format LCR | M | | 9.2.3.8E | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoOfDPCHLCR* | Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD |

### 9.2.3.8E TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [12]).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| CHOICE *Modulation* | | | | |
| > *QPSK* | | | | |
| >>QPSK TDD DL DPCH TimeSlot Format LCR | M | | INTEGER (0..24,…) | |
| > *8PSK* | | | | |
| >>8PSK TDD DL DPCH TimeSlot Format LCR | M | | INTEGER (0..24,…) | |

### 9.2.3.9 TDD Physical Channel Offset

The TDD Physical Channel Offset represents the phase information for the allocation of a non DPCH physical channel. (CFN mod Repetition Period = TDD Physical Channel Offset) see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD Physical Channel Offset | | | INTEGER (0..63) | |

### 9.2.3.10 TDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment (see ref [22]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD TPC Downlink Step Size | | | ENUMERATED(1, 2, 3,…) | Unit: dB |

### 9.2.3.10a TDD TPC Uplink Step Size

This parameter indicates step size for the UL power adjustment (see ref [22]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD TPC Uplink Step Size | | | ENUMERATED (1, 2, 3,…) | Unit: dB |

### 9.2.3.10A TDD UL Code Information

The *TDD UL Code Information* IE provides TDD UL Code information for all DPCHs of one UL Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **TDD UL Code Information** | | *1..<maxnoOfDPCHs>* | | | – | |
| >DPCH ID | M | | 9.2.3.3 | | – | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofDPCHs* | Maximum number of DPCHs for one CCTrCH. |

### 9.2.3.10B TDD UL Code Information LCR

The *TDD UL Code Information LCR* IE provides information for UL Code to be established for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **TDD UL Code Information LCR** | | *1 .. <maxnoOfDPCHLCR>* | | | – | |
| >DPCH ID | M | | 9.2.3.5 | | – | |
| >TDD Channelisation Code LCR | M | | 9.2.3.8a | | – | |
| > TDD UL DPCH Time Slot Format LCR | M | | 9.2.3.10C | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoOfDPCHLCR* | Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD. |

### 9.2.3.10C TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [12]).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| CHOICE *Modulation* | | | | |
| *> QPSK* | | | | |
| >>QPSK TDD UL DPCH Time Slot Format LCR | M | | INTEGER (0..69,…) | |
| *> 8PSK* | | | | |
| >>8PSK TDD UL DPCH Time Slot Format LCR | M | | INTEGER (0..24,…) | |

### 9.2.3.10D 1.28 Mcps TDD uplink physical channel capability

*1.28 Mcps TDD uplink physical channel capability* IE defines the UE uplink physical channel capability for 1.28 Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of timeslots per subframe | M | | INTEGER (1..6) | |
| Maximum number of physical channels per timeslot | M | | ENUMERATED (1,2,3,4...) | |

### 9.2.3.11 TFCI Coding

The TFCI Coding describes how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TFCI Coding | | | ENUMERATED(4, 8, 16, 32,…) | |

### 9.2.3.12 DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Timeslot ISCP | | | INTEGER( 0..91) | According to mapping in [24]. |

### 9.2.3.12a Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Time Slot LCR | | | INTEGER (0..6) | |

### 9.2.3.12A Timing Advance Applied

Defines the need for Timing Advance functions such as Rx Timing Deviation measurement in a particular cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Timing Advance Applied | | | ENUMERATED(Yes, No) | |

### 9.2.3.13 Transport Format Management

Defines whether the cell transmits the transport format information via broadcast or whether the transport format information is transmitted to the UE using dedicated RRC procedures

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Transport Format Management | | | ENUMERATED(Cell Based, UE Based,...) | |

### 9.2.3.13A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the DRNS, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL Timeslot ISCP | | | INTEGER(0..127) | According to mapping in [24]. |

### 9.2.3.13B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UL PhysCH SF Variation | | | ENUMERATED(SF_Variation_supported, SF_Variation_NOT_supported) | |

### 9.2.3.13C UL Timeslot Information

The *UL Timeslot Information* IE provides information on the time slot allocation for a UL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **UL Timeslot Information** | | *1..<maxnoOfTS>* | | | – | |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | – | |
| >TFCI Presence | M | | 9.2.1.55 | | – | |
| >UL Code Information | M | | TDD UL Code Information 9.2.3.10A | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofTSs* | Maximum number of Timeslots for a UE. |

### 9.2.3.13D UL Time Slot ISCP Info

The *UL Time Slot ISCP Info* IE gives interference level for each UL time slot within the Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **UL Time Slot ISCP Info** | | *1 .. <maxnoof ULts>* | | | – | |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >UL Timeslot ISCP | M | | 9.2.3.13A | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofULts* | Maximum number of uplink time slots per Radio Link. |

### 9.2.3.13E TSTD Indicator

Indicates if TSTD shall be active or not for the DL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TSTD Indicator | | | ENUMERATED(active, inactive) | |

### 9.2.3.13F TSTD Support Indicator

Indicates if UE support TSTD or not for DL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TSTD Support Indicator | | | ENUMERATED(TSTD supported, TSTD not supported) | |

### 9.2.3.13Fa UE Measurement Hysteresis Time

The UE Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the UE Measurement Reporting procedure to be triggered, see [16]..

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE Measurement Hysteresis Time | | | INTEGER(0..15) | Unit: dB<br>Range: 0..7.5 dB<br>Step: 0.5 dB |

### 9.2.3.13Fb UE Measurement Parameter Modification Allowed

Indicates if the SRNC may modify the UE measurement parameters based on its existing measurement schedule.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE Measurement Parameter Modification Allowed | | | ENUMERATED (Parameter Modification Allowed, …) | |

## 9.2.3.13Fc UE Measurement Report Characteristics

The UE Measurement Report Characteristics, defines how the reporting shall be performed. For definition of the event criteria see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *UE Report Characteristics* | | | | |
| >*Periodic* | | | | |
| >>Amount of Reporting | M | | ENUMERATED(1, 2, 4, 8, 16, 32, 64, infinity) | |
| >>Reporting Interval | M | | ENUMERATED (250, 500, 1000, 2000, 3000, 4000, 6000, 8000, 12000, 16000, 20000, 24000, 28000, 32000, 64000) | Indicates the interval of periodical report interval in milliseconds |
| >*Event 1h* | | | | |
| >>UE Measurement Threshold | M | | 9.2.3.13Fd | The threshold for which the DRNS shall trigger a measurement report. |
| >>UE Measurement Time to Trigger | M | | 9.2.3.13Fg | |
| >>Hysteresis | M | | 9.2.3.13Fa | |
| >*Event 1i* | | | | |
| >>UE Measurement Threshold | M | | 9.2.3.13Fd | The threshold for which the DRNS shall trigger a measurement report. |
| >>UE Measurement Time to Trigger | M | | 9.2.3.13Fg | |
| >>Hysteresis | M | | 9.2.3.13Fa | |
| >*Event 6a* | | | | |
| >>UE Measurement Threshold | M | | 9.2.3.13Fd | |
| >>UE Measurement Time to Trigger | M | | 9.2.3.13Fg | |
| >*Event 6b* | | | | |
| >>UE Measurement Threshold | M | | 9.2.3.13Fd | |
| >>UE Measurement Time to Trigger | M | | 9.2.3.13Fg | |
| >*Event 6c* | | | | |
| >>UE Measurement Time to Trigger | M | | 9.2.3.13Fg | |
| >*Event 6d* | | | | |
| >>UE Measurement Time to Trigger | M | | 9.2.3.13Fg | |

### 9.2.3.13Fd UE Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event 1h, 1i, 6a or 6b, see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *UE Measurement Threshold* | | | | |
| *>Timeslot ISCP* | | | | |
| >>Timeslot ISCP | M | | INTEGER (-115..-25) | In dBm |
| *>UE Tx Power* | | | | |
| >>UE Transmitted Power | M | | INTEGER(-50..33) | In dBm |

### 9.2.3.13Fe UE Measurement Timeslot Information HCR

The *UE Measurement Time Slot Information* IE provides information for DL timeslots for the UE to measure, see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **UE Measurement Timeslot Information** | | *1..<maxnoOfTS>* | | |
| >Time Slot | M | | 9.2.1.56 | |
| >Burst Type | M | | ENUMERATED(Type1, Type 2, Type 3,…) | |

| Range bound | Explanation |
|---|---|
| *maxnoofTSs* | Maximum number of Timeslots for a UE for 3.84Mcps TDD. |

### 9.2.3.13Ff UE Measurement Timeslot Information LCR

The *UE Measurement Time Slot Information LCR* IE provides information for DL timeslots for the UE to measure, see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **UE Measurement Time Slot Information LCR** | | *1 .. <maxnoOfTSLCR>* | | |
| >Time Slot LCR | M | | 9.2.3.12a | |

| Range bound | Explanation |
|---|---|
| *maxnoOfTSLCR* | Maximum number of Timeslots for a UE for 1.28Mcps TDD |

### 9.2.3.13Fg UE Measurement Time to Trigger

The UE time to trigger indicates the period of time between the timing of event detection and the timing of sending Measurement Report, see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE Measurement Time to trigger | M | | ENUMERATED(0, 10, 20, 40, 60, 80, 100, 120, 160, 200, | Time in ms. |

| | | | | |
|---|---|---|---|---|
| | | | 240, 320, 640, 1280, 2560, 5000) | |

## 9.2.3.13Fh UE Measurement Type

The UE Measurement Type identifies the type of measurement that shall be performed see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE Measurement Type | M | | ENUMERATED(Primary CCPCH RSCP , DL Timeslot ISCP, UE Transmitted Power,…) | |

## 9.2.3.13Fi UE Measurement Value

The UE Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *UE Measurement Value* | M | | | |
| *>UE Transmitted Power* | | | | |
| >>**UE Transmitted Power list HCR** | | *0..<maxnoOfTS>* | | Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD or 7.68Mcps TDD |
| >>>Time Slot | M | | 9.2.1.56 | |
| >>>UE Transmitted Power | M | | INTEGER (0..104) | According to mapping in [24] Values 0..20 are not used |
| >>**UE Transmitted Power list LCR** | | *0..< maxnoOfTSLCR>* | | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD |
| >>>Time Slot LCR | M | | 9.2.3.12a | |
| >>>UE Transmitted Power | M | | INTEGER (0..104) | According to mapping in [24] Values 0..20 are not used |
| >>**UE Transmitted Power list 768** | | *0..<maxnoOfTS>* | | Mandatory for 7.68Mcps TDD, not applicable to 1.28Mcps TDD or 3.84Mcps TDD |
| >>>Time Slot | M | | 9.2.1.56 | |
| >>>UE Transmitted Power | M | | INTEGER (0..104) | According to mapping in [24] Values 0..20 are not used |
| *>P-CCPCH RSCP* | | | | |
| >>Primary CCPCH RSCP | O | | 9.2.3.5 | According to mapping in [24] |
| >>Primary CCPCH RSCP Delta | O | | 9.2.3.5a | According to mapping in [24] |
| *>DL Timeslot ISCP* | | | | |
| **>>Timeslot list HCR** | | *0..<maxnoOfTS>* | | Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD or 7.68Mcps TDD |
| >>>Time Slot | M | | 9.2.1.56 | |
| >>>Timeslot ISCP | M | | 9.2.3.12 | |

| | | | | |
|---|---|---|---|---|
| **>>Timeslot list LCR** | | *0..<maxnoOfTSLCR>* | | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD |
| >>>Time Slot LCR | M | | 9.2.3.12a | |
| >>>Timeslot ISCP | M | | 9.2.3.12 | |
| **>>Timeslot list 768** | | *0..<maxnoOfTS>* | | Mandatory for 7.68Mcps TDD, not applicable to 1.28Mcps TDD or 3.84Mcps TDD |
| >>>Time Slot | M | | 9.2.1.56 | |
| >>>Timeslot ISCP | M | | 9.2.3.12 | |

| Range bound | Explanation |
|---|---|
| *maxnoOfTS* | Maximum number of Timeslots for a UE for 3.84Mcps TDD or 7.68Mcps TDD. |
| *maxnoofTSLCR* | Maximum number of Timeslots for a UE for 1.28Mcps TDD. |

## 9.2.3.13Fj UE Measurement Value Information

The *UE Measurement Value Information* IE provides information both on whether or not the UE Measurement Value is provided in the message and if provided also the UE Measurement Value itself.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Measurement Availability Indicator* | M | | | |
| *>Measurement Available* | | | | |
| >>UE Measurement Value | M | | 9.2.3.13Fi | |
| *>Measurement not Available* | | | NULL | |

## 9.2.3.13G UL Timeslot Information LCR

The *UL Timeslot Information LCR* IE provides information on the timeslot allocation for an UL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **UL Timeslot Information LCR** | | *1 .. <maxnoofULtsLCR>* | | | – | |
| >Time Slot LCR | M | | 9.2.3.12a | | – | |
| >Midamble Shift LCR | M | | 9.2.3.4C | | – | |
| >TFCI Presence | M | | 9.2.1.57 | | – | |
| >UL Code Information LCR | M | | TDD UL Code Information LCR 9.2.3.10B | | | |
| >PLCCH Information | O | | 9.2.3.17 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofULtsLCR* | Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD. |

### 9.2.3.13H UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **UL Time Slot ISCP Info** | | *1 .. <maxnoofULtsLCR>* | | | – | |
| >Time Slot LCR | M | | 9.2.3.12a | | – | |
| >UL Timeslot ISCP | M | | 9.2.3.26A | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofULtsLCR* | Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD |

### 9.2.3.13I Uplink Synchronisation Frequency

The *UL Synchronisation Frequency* IE specifies the frequency of the adjustment of the uplink transmission timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink synchronisation frequency | | | INTEGER (1..8) | Unit: subframe, step: 1 |

### 9.2.3.13J Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Uplink synchronisation step size | | | INTEGER (1..8) | Unit: 1/8 chip, step: 1. |

### 9.2.3.13K Uplink Timing Advance Control LCR

The Uplink Timing Advance Control LCR indicates the parameters which are used to support Uplink Synchronisation for the UE in 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| SYNC UL codes bitmap | M | | BITSTRING (8) | Each bit indicates the availability of a SYNC_UL code. |
| **FPACH info** | | 1 | | |
| >Time Slot LCR | M | | 9.2.3.12a | |
| >TDD Channelisation Code LCR | M | | 9.2.3.8a | |
| >Midamble Shift LCR | M | | 9.2.3.4C | |
| >WT | M | | INTEGER (1..4) | Maximum number of subframes to wait for transmission of FPACH. |
| PRXupPCHdes | M | | INTEGER (-120 .. –58, ...) | Desired UpPCH receive power.<br>Unit: dBm<br>Step size: 1 |
| **SYNC UL procedure parameters** | | 1 | | |
| >Maximum Sync UL transmissions | M | | ENUMERATED (1,2,4,8,...) | |
| >Power Ramp Step | M | | INTEGER (0..3, ...) | |
| Mmax | M | | INTEGER (1..32) | Maximum number of synchronisation attempts |

## 9.2.3.13L USCH ID

The USCH ID is the identifier of an uplink shared channel. It is unique among the USCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| USCH ID | | | INTEGER (0..255) | |

## 9.2.3.14 USCH Information

The *USCH Information* IE provides information for USCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **USCH Information** | | *1 to <maxnoofUSCHs>* | | | – | |
| >USCH ID | M | | 9.2.3.14 | | – | |
| >CCTrCH ID | M | | 9.2.3.2 | UL CCTrCH in which the USCH is mapped | – | |
| >TrCH Source Statistics Descriptor | M | | 9.2.1.65 | | – | |
| >Transport Format Set | M | | 9.2.1.64 | For USCH | – | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | – | |
| >Scheduling Priority Indicator | M | | 9.2.1.51A | | – | |
| **>RB Info** | | *1..<maxnoofRB>* | | All Radio Bearers using this USCH | – | |
| >>RB Identity | M | | 9.2.3.5B | | – | |
| >Traffic class | M | | 9.2.1.58A | | YES | ignore |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >TNL QoS | O | | 9.2.1.56A | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *maxnoofUSCHs* | Maximum number of USCHs for one UE. |
| *maxnoofRBs* | Maximum number of Radio Bearers for one UE. |

### 9.2.3.16 Support of PLCCH

The *Support of PLCCH* IE indicates whether PLCCH is supported or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Support of PLCCH | | | ENUMERATED(supported) | |

### 9.2.3.17 PLCCH Information

The *PLCCH Information* IE carres a PLCCH assignment for a timeslot of an UL DCH-type CCTrCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD Channelisation Code | M | | 9.2.3.8 | Only QPSK modulation is used with PLCCH |
| Time Slot LCR | M | | 9.2.3.12a | |
| Midamble Shift LCR | M | | 9.2.3.4C | |
| PLCCH Sequence Number | M | | 9.2.3.18 | |

### 9.2.3.18 PLCCH Sequence Number

This sequence number represents a portion of a PLCCH used to signal TPC / SS bits to a single UE. A value of zero indicates that the PLCCH assignment has been deleted.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| PLCCH Sequence Number | | | INTEGER (0..14) | |

### 9.2.3.19 Minimum Spreading Factor 7.68Mcps

Defines the minimum spreading factor the UE has the capability of receiving or transmitting for 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Minimum Spreading Factor 768 | | | INTEGER (1..32) | |

### 9.2.3.20 Maximum Number of DL Physical Channels 7.68Mcps

Defines the maximum number of physical channels for 7.68Mcps TDD – per frame that the UE is capable to receive.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of DL Physical Channels 768 | | | INTEGER (1..448) | |

### 9.2.3.21 Maximum Number of DL Physical Channels per Timeslot 7.68Mcps

Defines the maximum number of physical channels per timeslot that the UE is capable to receive for 7.68 Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Maximum Number of DL Physical Channels per Timeslot 768 | | | INTEGER (1..32) | |

### 9.2.3.22 Secondary CCPCH Info 7.68Mcps TDD

The *Secondary CCPCH Info 7.68Mcps TDD* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE for 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| TFCS | M | | 9.2.1.63 | For the DL. | – | |
| TFCI Coding | M | | 9.2.3.11 | | – | |
| **Secondary CCPCH** | | *0..<maxnoofSCCPCHs768>* | | | – | |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | | – | |
| >TFCI Presence | M | | 9.2.1.55 | | – | |
| >Secondary CCPCH TDD Code Information 7.68Mcps | M | | 9.2.3.24 | | – | |
| >TDD Physical Channel Offset | M | | 9.2.3.9 | | – | |
| >Repetition Length | M | | 9.2.3.6 | | – | |
| >Repetition Period | M | | 9.2.3.7 | | – | |
| FACH | | 0..maxnooffFACHs | | | – | |
| >TFS | M | | 9.2.1.64 | For the DL. | – | |
| PCH | | 0..1 | | | – | |
| >TFS | M | | 9.2.1.64 | For the DL. | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofSCCPCHs768* | Maximum number of Secondary CCPCHs per CCTrCH. |
| *maxnoofFACHs* | Maximum number of FACHs mapped onto a Secondary CCPCH. |

### 9.2.3.23 Midamble Shift And Burst Type 7.68Mcps

This information element indicates burst type and midamble allocation for 7.68Mcps TDD.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Burst Type* | | | | |
| >*Type 1* | | | | |
| >> Midamble Configuration Burst Type 1 And 3 | M | | ENUMERATED(4, 8, 16) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Default midamble, Common midamble, UE specific midamble) | |
| >>Midamble Shift Long | C-UE | | INTEGER(0..15) | |
| >*Type 2* | | | | |
| >> Midamble Configuration Burst Type 2 | M | | ENUMERATED (4, 8) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Default midamble, Common midamble, UE specific midamble) | |
| >>Midamble Shift Short | C-UE | | INTEGER (0..7) | |
| >*Type 3* | | | | UL only |
| >> Midamble Configuration Burst Type 1 And 3 | M | | ENUMERATED (4, 8, 16) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Default midamble, UE specific midamble) | |
| >>Midamble Shift Long | C-UE | | INTEGER(0..15) | |

| Condition | Explanation |
|---|---|
| UE | The IE shall be present if the *Midamble Allocation Mode* IE is set to "UE-specific midamble". |

## 9.2.3.24 Secondary CCPCH TDD Code Information 7.68Mcps

The *Secondary CCPCH TDD Code Information 7.68Mcps* IE provides TDD Channelisation Code information for all SCCPCHs of one Time Slot for 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **Secondary CCPCH TDD Code Information 7.68Mcps** | | *1..<maxnoOfSCCPCHs768>* | | | – | |
| >TDD Channelisation Code 7.68Mcps | M | | 9.2.3.25 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofSCCPCHs768* | Maximum number of SCCPCHs for one CCTrCH. |

## 9.2.3.25 TDD Channelisation Code 7.68Mcps

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 7.68Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8, 16 or 32.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TDD Channelisation Code | | | ENUMERATED((1/1), (2/1), (2/2), (4/1), .. (4/4), (8/1), .. (8/8), (16/1), .. (16/16), (32/1), .. (32,32),… ) | |

### 9.2.3.26 UL Timeslot Information 7.68Mcps

The *UL Timeslot Information* IE provides information on the time slot allocation for a UL DPCH for 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **UL Timeslot Information** | | *1..<maxnoOfTS>* | | | – | |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | | – | |
| >TFCI Presence | M | | 9.2.1.55 | | – | |
| >UL Code Information 7.68Mcps | M | | TDD UL Code Information 7.68Mcps 9.2.3.27 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofTSs* | Maximum number of Timeslots for a UE. |

### 9.2.3.27 TDD UL Code Information 7.68Mcps

The *TDD UL Code Information 7.68Mcps* IE provides TDD UL Code information for all DPCHs of one UL Time Slot for 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **TDD UL Code Information** | | *1..<maxnoOfDPCHs768>* | | | – | |
| >DPCH ID | M | | 9.2.3.3 | | – | |
| >TDD Channelisation Code 7.68Mcps | M | | 9.2.3.25 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofDPCHs768* | Maximum number of DPCHs for one CCTrCH. |

### 9.2.3.28 DL Timeslot Information 7.68Mcps

The *DL Timeslot Information 7.68Mcps* IE provides information on the time slot allocation for a DL DPCH for 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **DL Timeslot Information** | | *1..<maxnoOfTS>* | | | – | |
| >Time Slot | M | | 9.2.1.56 | | – | |
| >Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | | – | |
| >TFCI Presence | M | | 9.2.1.55 | | – | |
| >DL Code Information 7.68Mcps | M | | TDD DL Code Information 7.68Mcps 9.2.3.29 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofTSs* | Maximum number of Timeslots for a UE. |

## 9.2.3.29 TDD DL Code Information 7.68Mcps

The *TDD DL Code Information* IE provides TDD DL Code information for all DPCHs of one DL Time Slot for 7.68Mpcs TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **TDD DL Code Information** | | *1..<maxnoOfDPCHs768>* | | | – | |
| >DPCH ID | M | | 9.2.3.3 | | – | |
| >TDD Channelisation Code 7.68Mcps | M | | 9.2.3.25 | | – | |

| Range bound | Explanation |
|---|---|
| *maxnoofDPCHs768* | Maximum number of DPCHs for one CCTrCH. |

## 9.2.3.30 Rx Timing Deviation 7.68Mcps

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value..

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Rx Timing Deviation | | | INTEGER (0..1023) | As specified in [5] |

## 9.2.3.31 Cell Capability Container 7.68 Mcps TDD

The Cell Capability Container 7.68 McpsTDD indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Capability Container TDD | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.<br>The first bit: Delayed Activation Support Indicator.<br>The second bit: HS-DSCH Support Indicator.<br>The third bit: DSCH Support Indicator.<br>The fourth bit: Flexible MAC-d PDU Size Support Indicator.<br>Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

### 9.2.3.32 Neighbouring TDD Cell Measurement Information 7.68Mcps

This IE provides information on the 7.68Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.1.8 | |
| Time slot | O | | 9.2.1.56 | |
| Midamble Shift And Burst Type 7.68Mcps | O | | 9.2.3.23 | |

### 9.2.3.33 UE Measurement Timeslot Information 7.68Mcps

The *UE Measurement Time Slot Information* IE provides information for DL timeslots for the UE to measure, see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **UE Measurement Timeslot Information** | | *1..<maxnoOfTS>* | | |
| >Time Slot | M | | 9.2.1.56 | |
| >Burst Type | M | | ENUMERATED (Type1, Type 2, Type 3,…) | |

| Range bound | Explanation |
|---|---|
| *maxnoofTSs* | Maximum number of Timeslots for a UE for 7.68Mcps TDD. |

### 9.2.3.34 DPCH ID 7.68Mcps

The *DPCH ID 7.68Mcps* identifies unambiguously a DPCH inside a downlink Radio Link for 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DPCH ID | | | INTEGER (0..479) | |

### 9.2.3.35 Rx Timing Deviation 3.84Mcps Extended

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value. This is used when the extended timing advance is in use at 3.84 Mcps.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Rx Timing Deviation | | | INTEGER (0..511) | As specified in [5] |

### 9.2.3.36 E-PUCH Information

The *E-PUCH Information* IE provides parameters to configure the E-PUCH physical channel for 3.84Mcps TDD and 7.68 Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Minimum code rate | M | | INTEGER (0..63) | Unit: -<br>Range: 0.055 ..1<br>Step: 0.015 |
| Maximum code rate | M | | INTEGER (0..63) | Unit: -<br>Range: 0.055 ..1<br>Step: 0.015 |
| HARQ Info for E-DCH | M | | ENUMERATED (rv0, rvtable) | "rv0" indicates that the UE will only use E_DCH RV index 0.<br>"rvtable" indicates that the UE will use an RSN based RV index as specified in [8] |
| $N_{E\text{-}UCCH}$ | M | | INTEGER (1..12) | Number of slots that are required to carry TPC and TFCI (consecutively allocated slots beginning with the first). |

### 9.2.3.36a E-PUCH Information LCR

The *E-PUCH Information LCR* IE provides parameters to configure the E-PUCH physical channel for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Minimum code rate | M | | INTEGER (0..63) | Unit: - Range: 0.055 ..1 Step: 0.015 | – | |
| Maximum code rate | M | | INTEGER (0..63) | Unit: - Range: 0.055..1 Step: 0.015 | – | |
| HARQ Info for E-DCH | M | | ENUMERATED (rv0, rvtable) | "rv0" indicates that the UE will only use E_DCH RV index 0. "rvtable" indicates that the UE will use an RSN based RV index as specified in [8] | – | |
| PRXdes_base | M | | INTEGER (-112..-50) | dBm. Reference Desired RX power level for E-PUCH | – | |
| E-PUCH TPC Step Size | M | | 9.2.3.10a | | – | |
| $N_{E\text{-}UCCH}$ | M | | INTEGER (1..8) | Number of E-UCCH and TPC instances within an E-DCH TTI. Details are described in [12]. | – | |
| E-PUCH Power Control GAP | O | | INTEGER (1..255) | Unit: Number of subframes. Reference to E-PUCH Power Control for 1.28Mcps TDD in [22]. If it is not present, UE shall deem it to be infinite in which case closed loop power control shall always be used. | YES | ignore |

## 9.2.3.37 E-TFCS Information TDD

Whereas the related E-DCH Transport Block sizes are standardised in [32] this IE gives details on the Reference Betas.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Reference Beta Information QPSK** | | *1..<maxnoofRefbetas>* | | |
| >Reference Code Rate | M | | INTEGER (0..10) | Unit: -<br>Range: 0..1<br>Step: 0.1 |
| >Reference Beta | M | | INTEGER( -15..16) | Unit: -<br>Range: -15..+16<br>Step: 1 dB |
| **Reference Beta Information 16QAM** | | 1..<maxnoofRefbetas> | | |
| >Reference Code Rate | M | | INTEGER (0..10) | Unit: -<br>Range: 0..1<br>Step: 0.1 |
| >Reference Beta | M | | INTEGER( -15..16) | Unit: -<br>Range: -15..+16<br>Step: 1 dB |

| Range Bound | Explanation |
|---|---|
| *maxnoofRefbetas* | Maximum number of signalled reference betas |

### 9.2.3.38 E-DCH MAC-d Flows Information TDD

The *E-DCH MAC-d Flows Information TDD* IE is used for the establishment of E-DCH MAC-d flows for TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information** | | *1..<maxnoofEDCHMACdFlows>* | | | – | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | | – | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | – | |
| >TNL QoS | O | | 9.2.1.56A | | – | |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Payload CRC Presence Indicator | M | | 9.2.1.42 | | – | |
| >Maximum Number Of Retransmissions For E-DCH | M | | 9.2.1.100 | | – | |
| >E-DCH HARQ Power Offset TDD | M | | 9.2.3.49 | | – | |
| >E-DCH MAC-d Flow Multiplexing List | O | | 9.2.1.89 | | – | |
| >E-DCH Grant Type | M | | 9.2.3.43 | | – | |
| >E-DCH Logical Channel Information | M | | 9.2.1.92 | | – | |
| >E-DCH MAC-d Flow Retransmission Timer | O | | 9.2.3.49a | Mandatory for LCR TDD. Not applicable for 3.84Mcps TDD and 7.68Mcps TDD. | YES | YES |
| >Traffic Class | M | | 9.2.1.58A | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |

## 9.2.3.39 E-DCH Non-scheduled Grant Information TDD

The *E-DCH Non-scheduled Grant Information TDD* IE is used to specify the details of an non-scheduled grant for 3.84Mcps and 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Timeslot Resource Related Information | M | | 9.2.3.44 | |
| Power Resource Related Information | M | | 9.2.3.45 | |
| Repetition Period | M | | 9.2.3.6 | |
| Repetition Length | M | | 9.2.3.7 | |
| TDD E-PUCH Offset | M | | 9.2.3.46 | |
| TDD Channelisation Code | M | | 9.2.3.8 | |

### 9.2.3.39a E-DCH Non-scheduled Grant Information LCR TDD

The *E-DCH Non-scheduled Grant Information LCR TDD* IE is used to specify the details of an non-scheduled grant for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Timeslot Resource Related Information LCR | M | | 9.2.3.44a | |
| Power Resource Related Information | M | | 9.2.3.45 | |
| Repetition Period | M | | 9.2.3.6 | |
| Repetition Length | M | | 9.2.3.7 | |
| Subframe Number | M | | ENUMERATED (0,1) | Used to indicate from which subframe of the Radio Frame indicated by *TDD E-PUCH Offset* IE the physical resources are assigned to the E-DCH Non-scheduled Grant. |
| TDD E-PUCH Offset | M | | 9.2.3.46 | |
| TDD Channelisation Code | M | | 9.2.3.8 | |

### 9.2.3.40 E-DCH TDD Information

The *E-DCH TDD Information* specifies the details of the maximum bit rate and processing overload level.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH TDD Maximum Bitrate | O | | 9.2.3.47 | |
| E-DCH Processing Overload Level | O | | 9.2.1.95 | |
| E-DCH Power Offset for Scheduling Info | O | | 9.2.1.96 | |

### 9.2.3.40a E-DCH TDD Information LCR

The *E-DCH TDD Information LCR* IE specifies the details of UE physical layer category, NodeB processing overload level and power offset, Maximum Number of Retransmission and E-DCH Retransmission timer for scheduling info. The *E-AGCH Inactivity Monitor Threshold* IE is used for E-AGCH channel monitoring control for scheduled transmission.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| E-DCH Physical Layer Category LCR | O | | 9.2.3.54 | If the *Extended E-DCH Physical Layer Category LCR* IE is included in the *E-DCH TDD Information LCR* IE, the *E-DCH Physical Layer Category LCR* IE shall be ignored. | – | |
| E-DCH Processing Overload Level | O | | 9.2.1.95 | | – | |
| E-DCH Power Offset for Scheduling Info | O | | 9.2.1.96 | | – | |
| Extended E-DCH Physical Layer Category LCR | O | | 9.2.3.54A | The *Extended E-DCH Physical Layer Category LCR* IE shall be used if the E-DCH Physical Layer Category has a value larger than 5. | YES | reject |
| Maximum Number of Retransmission for Scheduling Info LCR | O | | 9.2.1.100 | | YES | ignore |
| E-DCH Retransmission timer for Scheduling Info LCR | O | | 9.2.3.49a | | YES | ignore |
| E-AGCH Inactivity Monitor Threshold | O | | Enumerated (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, spare5, …, infinity) | Units of subframes. | YES | ignore |

## 9.2.3.41 E-DCH TDD Information Response

The *E-DCH TDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information Response** | | *0..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | |
| >Binding ID | O | | 9.2.1.3 | |
| >Transport Layer Address | O | | 9.2.1.62 | |
| **E-AGCH Specific Information Response** | | *0..<maxNoOfEAGCHcodes>* | | |
| >Time Slot | M | | 9.2.1.56 | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | |
| >TDD Channelisation Code | M | | 9.2.3.8 | |
| **E-HICH Information Response** | | *0..1* | | |
| >Time Slot | M | | 9.2.1.56 | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | |
| >TDD Channelisation Code | M | | 9.2.3.8 | |
| >E-HICH Time Offset | M | | 9.2.3.48 | |
| E-DCH Non-scheduled Grant Information TDD | O | | 9.2.3.39 | |
| E-RNTI | O | | 9.2.1.94 | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of MAC-d flows |
| *maxnoofEAGCHcodes* | Maximum number of E-AGCHs assigned to one UE |

### 9.2.3.41a E-DCH TDD Information Response 1.28Mcps

Only for 1.28Mcps TDD. The *E-DCH TDD Information Response 1.28Mcps* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information Response** | | *0..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | |
| >Binding ID | O | | 9.2.1.3 | |
| >Transport Layer Address | O | | 9.2.1.62 | |
| **E-AGCH Specific Information Response** | | *0..<maxNoOfEAGCHcodes>* | | |
| >Time Slot LCR | M | | 9.2.3.12a | |
| >Midamble Shift LCR | M | | 9.2.3.4C | |
| >TDD Channelisation Code | M | | 9.2.3.8 | |
| **E-HICH Scheduled specific Information Response** | | *0..1* | | |
| **>Scheduled** | | *0..< maxNoOfEHICHcodes>* | | |
| >>EI | M | | INTEGER (0..3) | E-HICH indication which is used to indicate UE on which E-HICH the feedback info is carried. |
| >>Time Slot LCR | M | | 9.2.3.12a | |
| >>Midamble Shift LCR | M | | 9.2.3.4C | |
| >>TDD Channelisation Code | M | | 9.2.3.8 | |
| **>Non-Scheduled** | | *0..1* | | |
| >>Time Slot LCR | M | | 9.2.3.12a | |
| >>Midamble Shift LCR | M | | 9.2.3.4C | |
| >>TDD Channelisation Code | M | | 9.2.3.8 | |
| >>Signature Sequence Group Index | M | | INTEGER (0..19) | |
| >E-HICH time offset LCR | M | | 9.2.3.48a | |
| E-DCH Non-scheduled Grant Information LCR TDD | O | | 9.2.3.39a | |
| E-RNTI | O | | 9.2.1.94 | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of MAC-d flows |
| *maxnoofEAGCHcodes* | Maximum number of E-AGCHs assigned to one UE |
| *maxnoofEHICHcodes* | Maximum number of E-HICHs assigned to one UE |

### 9.2.3.42 E-DCH TDD Information to Modify

The *E-DCH MAC-d Flows Information TDD* IE is used for the establishment of E-DCH MAC-d flows for TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information** | | *1..<maxnoofEDCHMACdFlows>* | | | – | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| >Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | – | |
| >TNL QoS | O | | 9.2.1.56A | | – | |
| >Maximum Number Of Retransmissions For E-DCH | O | | 9.2.1.100 | | – | |
| >E-DCH HARQ Power Offset TDD | O | | 9.2.3.49 | | – | |
| >E-DCH MAC-d Flow Multiplexing List | O | | 9.2.1.89 | | – | |
| >E-DCH Grant Type | O | | 9.2.3.43 | | – | |
| >E-DCH Logical Channel To Add | O | | E-DCH Logical Channel Information 9.2.1.92 | | – | |
| >E-DCH Logical Channel To Modify | O | | 9.2.1.93 | | – | |
| >E-DCH Logical Channel To Delete | | 0..< maxnooflogicalchannels> | | | – | |
| >>Logical Channel ID | M | | 9.2.1.97 | | – | |
| >E-DCH MAC-d Flow Retransmission Timer | O | | 9.2.3.49a | Applicable for 1.28Mcps TDD only | YES | ignore |
| >Traffic Class | O | | 9.2.1.58A | | YES | ignore |
| MAC-e Reset Indicator | O | | 9.2.1.99 | | – | |
| E-DCH MAC-d PDU Size Format | O | | 9.2.1.91A | | YES | reject |

| Range Bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlows* | Maximum number of E-DCH MAC-d flows |
| *maxnooflogicalchannels* | Maximum number of logical channels |

## 9.2.3.43 E-DCH Grant Type

The *E-DCH Grant Type* identifies whether a MAC-d flow is scheduled or non-scheduled.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Grant Type | | | ENUMERATED (Scheduled, Non-scheduled) | |

### 9.2.3.44 Timeslot Resource Related Information

The *Timeslot Resource Related Information* is a bitmap indicating which of the timeslots configured for E-DCH are allocated for non-scheduled transmissions.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Timeslot Resource Related Information | | | BIT STRING (13) | |

### 9.2.3.44a Timeslot Resource Related Information LCR

The *Timeslot Resource Related Information LCR* IE is a bitmap indicating which of the timeslots configured for E-DCH are allocated for non-scheduled transmissions.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Timeslot Resource Related Information LCR | | | BIT STRING (5) | |

### 9.2.3.45 Power Resource Related Information

The *Power Resource Related Information* specifies the maximum allowed E-PUCH power resource (dB relative to $P_{e\text{-}base}$) that the UE may use for non-scheduled transmissions.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Power Resource Related Information | | | INTEGER (1..32) | |

### 9.2.3.46 E-PUCH Offset

The *E-PUCH Offset* represents the CFN offset at which an non-scheduled E-DCH grant begins.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-PUCH Offset | | | INTEGER (0..255) | |

### 9.2.3.47 E-DCH TDD Maximum Bitrate

The *E-DCH TDD Maximum Bitrate* parameter indicates the Maximum Bitrate for an E-DCH in TDD mode.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH TDD Maximum Bitrate | | | INTEGER (0..9201,…) | Bitrate on transport block level. Unit is kbits per second. |

### 9.2.3.48 E-HICH Time Offset

The E-HICH Time Offset ( aka $n_{E\text{-}HICH}$ [19])is determined by the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-HICH Time Offset | | | INTEGER (4..44) | |

### 9.2.3.48a E-HICH Time Offset LCR

The *E-HICH Time Offset LCR* IE(aka $n_{E\text{-}HICH}$ [19])is determined by the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-HICH Time Offset LCR | | | INTEGER (4..15) | |

### 9.2.3.49 E-DCH HARQ Power Offset TDD

The *E-DCH HARQ Power Offset TDD* is the power offset measured in dB.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH HARQ Power Offset TDD | | | INTEGER (0..6) | |

### 9.2.3.49a E-DCH MAC-d Flow Retransmission Timer

The *E-DCH MAC-d Flow Retransmission Timer* IE is used in the E-DCH retransmission control as defined in ref. [32].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH MAC-d Flow Retransmission Timer | | | ENUMERATED (10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 140, 160, 200, 240, 280, 320, 400, 480, 560,…) | Unit: ms<br>Node B may use this value to stop the re-transmission of the corresponding MAC-e PDU. |

### 9.2.3.50 E-DCH Non-scheduled Grant Information 7.68Mcps TDD

The *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE is used to specify the details of an non-scheduled grant for TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Timeslot Resource Related Information | M | | 9.2.3.44 | |
| Power Resource Related Information | M | | 9.2.3.45 | |
| Repetition Period | M | | 9.2.3.6 | |
| Repetition Length | M | | 9.2.3.7 | |
| TDD E-PUCH Offset | M | | 9.2.3.46 | |
| TDD Channelisation Code 7.68Mcps | M | | 9.2.3.25 | |

### 9.2.3.51 E-DCH TDD Information 7.68Mcps

The *E-DCH TDD Information 7.68Mcps* specifies the details of the maximum bit rate and processing overload level for 7.68Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH TDD Maximum Bitrate 7.68Mcps | O | | 9.2.3.53 | |
| E-DCH Processing Overload Level | O | | 9.2.1.95 | |
| E-DCH Power Offset for Scheduling Info | O | | 9.2.1.96 | |

## 9.2.3.52 E-DCH TDD Information Response 7.68Mcps

The *E-DCH TDD Information Response 7.68Mcps* IE provides information for E-DCH MAC-d flows that have been established or modified for 7.68Mcps TDD. It also provides additional E-DCH information determined within the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **E-DCH MAC-d Flow Specific Information Response** | | *0..<maxnoofEDCHMACdFlows>* | | |
| >E-DCH MAC-d Flow ID | M | | 9.2.1.91 | |
| >Binding ID | O | | 9.2.1.3 | |
| >Transport Layer Address | O | | 9.2.1.62 | |
| **E-AGCH Specific Information Response 7.68Mcps** | | *0..<maxNoOfEAGCHcodes>* | | |
| >Time Slot | M | | 9.2.1.56 | |
| >Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | |
| >TDD Channelisation Code 7.68Mcps | M | | 9.2.3.25 | |
| **E-HICH Information Response 7.68Mcps** | | *0..1* | | |
| >Time Slot | M | | 9.2.1.56 | |
| >Midamble Shift And Burst Type 7.68Mcps | M | | 9.2.3.23 | |
| >TDD Channelisation Code 7.68Mcps | M | | 9.2.3.25 | |
| >E-HICH Time Offset | M | | 9.2.3.48 | |
| E-DCH Non-scheduled Grant Information 7.68Mcps TDD | O | | 9.2.3.50 | |
| E-RNTI | O | | 9.2.1.94 | |

| Range Bound | Explanation |
|---|---|
| maxnoofEDCHMACdFlows | Maximum number of E-DCH MAC-d flows |
| maxnoofEAGCHcodes | Maximum number of E-AGCHs assigned to one UE |

## 9.2.3.53 E-DCH TDD Maximum Bitrate 7.68Mcps

The *E-DCH TDD Maximum Bitrate 7.68Mcps* parameter indicates the Maximum Bitrate for an E-DCH in 7.68Mcps TDD mode.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH TDD Maximum Bitrate 7.68Mcps | | | INTEGER (0..17713,…) | Bitrate on transport block level. Unit is kbits per second. |

### 9.2.3.54 E-DCH Physical Layer Category LCR

Only for 1.28Mcps TDD. The *E-DCH Physical Layer Category LCR* IE parameter indicates the E-DCH physical layer capability of UE in LCR TDD mode.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Physical Layer Category LCR | | | INTEGER (1..5) | As defined in [42] |

### 9.2.3.54A Extended E-DCH Physical layer Category LCR

Only for 1.28Mcps TDD. The *Extended E-DCH Physical Layer Category LCR* IE parameter indicates the E-DCH physical layer capability of UE in LCR TDD mode.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Extended E-DCH Physical Layer Category LCR | | | INTEGER(6,...) | As defined in [42] |

### 9.2.3.55 UpPCH Information LCR

Only for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| UpPCH Information LCR | | *1..<maxFrequencyinCell>* | | | EACH | ignore |
| >UARFCN | O | | 9.2.1.66 | | – | |
| >UpPCH Position LCR | O | | 9.2.3.56 | | – | |

| Range Bound | Explanation |
|---|---|
| maxFrequencyinCell | Maximum number of Frequency that can be defined in a Cell |

### 9.2.3.56 UpPCH Position LCR

Only for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UpPCH Position LCR | | | INTEGER (1..127) | |

### 9.2.3.57 Common E-DCH MAC-d Flow ID

The *Common E-DCH MAC-d Flow ID* IE is the unique identifier for one MAC-d flow on E-DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Common E-DCH MAC-d Flow ID | | | INTEGER (0..255) | |

### 9.2.3.58 Common E-DCH MAC-d Flow Specific Information LCR

The *Common E-DCH MAC-d Flow Specific Information LCR* IE provides information associated to Common E-DCH MAC-d Flow used for Common E-DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Common E-DCH MAC-d Flow Specific Information LCR** | | *1..<maxnoofEDCHMACdFlowsLCR>* | | |
| >Common E-DCH MAC-d Flow ID | M | | 9.2.3.57 | |
| >Maximum Number Of Retransmissions For E-DCH | M | | 9.2.1.100 | |
| >E-DCH HARQ Power Offset TDD | M | | 9.2.3.49 | |
| >E-DCH MAC-d Flow Multiplexing List | O | | 9.2.1.89 | |
| **>Common E-DCH Logical Channel information** | M | *1..<maxnooflogicalchannelsLCR>* | | |
| >>Logical Channel ID | M | | 9.2.1.97 | |
| >>Maximum MAC-d PDU Size Extended | M | | MAC PDU Size Extended 9.2.1.34D | |

| Range bound | Explanation |
|---|---|
| *maxnoofEDCHMACdFlowsLCR* | Maximum number of E-DCH MAC-d Flows for 1.28Mcps TDD |
| *maxnooflogicalchannelsLCR* | Maximum number of logical channels |

### 9.2.3.59 MAC-es Maximum Bit Rate LCR

The *MAC-es Maximum Bit Rate LCR* IE indicates the maximum number of bits per second to be delivered over the air interface.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| MAC-es Maximum Bit Rate LCR | | | INTEGER (0..256,000,000,…) | Unit: bit/s |

### 9.2.3.60 Idle Interval Information

The *Idle Interval Information* IE indicates the idle interval used for E-UTRAN measurements by a multi-RAT UE in CELL_DCH state. Ref [64].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| K | M | | INTEGER (2..3) | The actual idle interval period = 2^k. |
| Offset | M | | INTEGER (0..7) | The idle interval position in the period. |

### 9.2.3.61 Continuous Packet Connectivity DRX Information LCR

The *Continuous Packet Connectivity DRX Information LCR* IE defines the parameters used for Continuous Packet Connectivity DRX operation for 1.28 Mcps TDD (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Enabling Delay | M | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128) | Units of radio frames |
| **HS-SCCH DRX Information** | | *1* | | |
| >UE DRX Cycle | M | | ENUMERATED(1,2, 4,8,16,32,64,…) | Units of subframes |
| >Inactivity Threshold for UE DRX Cycle | O | | ENUMERATED(1,2, 4,8,16,32,64,…) | Units of subframes |
| >UE DRX Offset | M | | INTEGER (0..63) | Units of subframes. Offset of the UE DRX cycles at the given TTI |
| **E-AGCH DRX Information** | | *0..1* | | |
| CHOICE *E-AGCH DRX information type* | M | | | |
| >*Same as HS-SCCH* | | | NULL | Indicate the E-AGCH DRX Cycle and Offset are the same as the HS-SCCH DRX Cycle and Offset, and the E-AGCH Inactivity Monitor Threshold is absent |
| >*E-AGCH DRX parameters* | | | | |
| >>E-AGCH DRX cycle | M | | Enumerated (1,2,4,8,16,32,64, …) | Units of subframes. |
| >>E-AGCH Inactivity Monitor Threshold | O | | Enumerated (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, infinity,…) | Units of subframes. |
| >>E-AGCH DRX Offset | M | | Integer (0.. 63) | Units of subframes. Offset of the E-AGCH DRX cycles. |

### 9.2.3.62 Continuous Packet Connectivity DRX Information To Modify LCR

The *Continuous Packet Connectivity DRX Information To Modify LCR* IE is used for modification of Continuous Packet Connectivity DRX information in a Node B Communication Context. The *Continuous Packet Connectivity DRX Information To Modify LCR* IE shall include at least one of the following IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Enabling Delay | O | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128) | Units of radio frames |
| CHOICE *DRX Information To Modify* | O | | | |

| | | | | |
|---|---|---|---|---|
| *>Modify* | | | | |
| **>>HS-SCCH DRX Information** | | *0..1* | | |
| >>>UE DRX Cycle | M | | ENUMERATED(1,2, 4,8,16,32,64,…) | Units of subframes |
| >>>Inactivity Threshold for UE DRX Cycle | M | | ENUMERATED(1,2, 4,8,16,32,64,…) | Units of subframes |
| >>>UE DRX Offset | O | | INTEGER (0..63) | Units of subframes. Offset of the UE DRX cycles at the given TTI |
| **>>E-AGCH DRX Information** | | *0..1* | | |
| >>>CHOICE *E-AGCH DRX information type* | M | | | |
| >>>>*Same as HS-SCCH* | | | NULL | Indicate the E-AGCH DRX Cycle and Offset are the same as the HS-SCCH DRX Cycle and Offset, and the E-AGCH Inactivity Monitor Threshold is absent |
| >>>>*E-AGCH DRX parameters* | | | | |
| >>>>>E-AGCH DRX cycle | M | | Enumerated (1,2,4,8,16,32,64,…) | Units of subframes. |
| >>>>>E-AGCH Inactivity Monitor Threshold | O | | Enumerated (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, infinity,…) | Units of subframes. |
| >>>>>E-AGCH DRX Offset | M | | Integer (0.. 63) | Units of subframes. Offset of the E-AGCH DRX cycles. |
| *>Deactivate* | | | NULL | |

## 9.2.3.63 Continuous Packet Connectivity DRX Information Response LCR

DRNS uses the *Continuous Packet Connectivity DRX Information Response LCR* IE to inform the SRNS the parameters used for Continuous Packet Connectivity DRX operation for 1.28 Mcps TDD (see ref. [21]). Continuous Packet Connectivity DRX related parameters shall be configured by SRNS. For the parameters which can be accepted by DRNS, the DRNS shall not included the related IEs in the *Continuous Packet Connectivity DRX Information Response LCR* IE. For the parameters which can be not accepted by DRNS, the DRNS shall included the related IEs in the *Continuous Packet Connectivity DRX Information Response LCR* IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Enabling Delay | O | | ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128) | Units of radio frames |
| **HS-SCCH DRX Information** | | *0..1* | | |
| >UE DRX Cycle | O | | ENUMERATED(1,2, 4,8,16,32,64,…) | Units of subframes |
| >Inactivity Threshold for UE DRX Cycle | O | | ENUMERATED(1,2, 4,8,16,32,64,…) | Units of subframes |
| >UE DRX Offset | O | | INTEGER (0..63) | Units of subframes. Offset of the UE DRX cycles at the given TTI |
| **E-AGCH DRX Information** | | *0..1* | | |
| CHOICE *E-AGCH DRX information type* | M | | | |
| *>Same as HS-SCCH* | | | NULL | Indicate the E-AGCH DRX |

| | | | | |
|---|---|---|---|---|
| | | | | Cycle and Offset are the same as the HS-SCCH DRX Cycle and Offset, and the E-AGCH Inactivity Monitor Threshold is absent |
| *>E-AGCH DRX parameters* | | | | |
| >>E-AGCH DRX cycle | O | | Enumerated (1,2,4,8,16,32,64,…) | Units of subframes. |
| >>E-AGCH Inactivity Monitor Threshold | O | | Enumerated (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, infinity,…) | Units of subframes. |
| >>E-AGCH DRX Offset | O | | Integer (0.. 63) | Units of subframes. Offset of the E-AGCH DRX cycles. |

### 9.2.3.64 HS-DSCH Semi-Persistent scheduling Information LCR

The *HS-DSCH Semi-Persistent scheduling Information LCR* IE defines the parameters used for HS-DSCH semi-Persistent scheduling for 1.28 Mcps TDD (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Transport Block Size List** | | *1..< maxnoofTBSsMapping >* | | |
| >Transport Block Size maping Index | M | | INTEGER (0.. maxnoofTBSsMapping-1) | Corresponds to the *Transport-block size information* field carried on HS-SCCH (see ref [34]). |
| >Transport Block Size Index | M | | INTEGER (1.. maxnoofHS-DSCHTBSsLCR) | Corresponds to the *TB index* in the related Transport Block Size table (see ref [32]). |
| **Repetition Period list** | | *1..<maxnoofRepetitionPeriodLCR>* | | |
| >Repetition Period Index | M | | INTEGER (0.. maxnoofRepetitionPeriodLCR-1) | Corresponds to the *Resource repetition period index* field carried on HS-SCCH (see ref [34]). |
| >Repetition Period | M | | ENUMERATED (1, 2, 4, 8, 16, 32, 64,…) | Units of subframes |
| >Repetition Length | O | | INTEGER (1..63)) | Absence means Repetition Length equal to 1. |
| HS-DSCH Semi-Persistent Resource Reservation Indicator | O | | ENUMERATED(Reserve) | Reserve means the HS-DSCH Semi-Persistent Resource is required to be reserved and be informed via response message. |
| **HS-DSCH Semi-Persistent scheduling operation Indicator** | | *1* | | |
| ***>CHOICE configuration*** | | | | |

| | | | | |
|---|---|---|---|---|
| >>Logical Channel level | | | BIT STRING (16) | Available when MAC-ehs is configured.<br>Indicates the logical channels for which the HS-DSCH Semi-Persistent operation is intended to be used.<br>Bit 0 is for logical channel 0, Bit 1 is for logical channel 1, …<br>Value '1' for a bit means that the HS-DSCH Semi-Persistent operation is allowed. Bit 0 is the first/leftmost bit of the bit string. |
| >> *Priority Queue level* | | | BIT STRING (8) | Indicates the Priority Queues for which the HS-DSCH Semi-Persistent operation is intended to be used.<br>Bit 0 is for priority queue 0, Bit 1 is for priority queue 1, ...<br>Value '1' for a bit means that the HS-DSCH Semi-Persistent operation is allowed. Bit 0 is the first/leftmost bit of the bit string. |

| Range Bound | Explanation |
|---|---|
| *maxnoofHS-DSCHTBSsLCR* | Maximum number of HS-DSCH Transport Block Sizes |
| *maxnoofRepetitionPeriodLCR* | Maximum number of Repetition Period for 1.28Mcps TDD |
| *maxnoofTBSsMapping* | Maximum number of Transport Block Size mapping index on HS-SCCH. |

### 9.2.3.65 HS-DSCH Semi-Persistent scheduling Information to modify LCR

The *HS-PSCH Semi-Persistent scheduling Information to modify LCR* IE is used for the modification of HS-DSCH Semi-Persistent scheduling information for 1.28 Mcps TDD (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Transport Block Size List** | | *0..< maxnoofTBSsMapping >* | | |
| > Transport Block Size maping Index | M | | INTEGER (0.. maxnoofTBSsMapping-1) | Corresponds to the *Transport-block size information* field carried on HS-SCCH (see ref [34]). |
| >Transport Block Size Index | M | | INTEGER (1.. maxnoofHS-DSCHTBSsLCR) | Corresponds to the *TB index* in the related Transport Block Size table (see ref [32]). |
| **Repetition Period list** | | *0..<maxnoofRepetitionPeriodLCR>* | | |
| >Repetition Period Index | M | | INTEGER (0.. maxnoofRepetitionPeriodLCR) | Corresponds to the *Resource repetition period index* field carried on HS-SCCH (see ref [34]). |
| >Repetition Period | M | | ENUMERATED (1, 2, 4, 8, 16, 32, 64,…) | Units of subframes |
| >Repetition Length | O | | INTEGER (1..63)) | Absence means Repetition Length equal to 1. |
| HS-DSCH Semi-Persistent Resource Reservation Indicator | O | | ENUMERATED(Reserve) | Reserve means the Semi-Persistent HS-DSCH Resource is required to be |

| | | | | |
|---|---|---|---|---|
| | | | | reserved and be informed via response message. |
| **HS-DSCH Semi-Persistent scheduling operation Indicator** | | *0..1* | | |
| **>CHOICE *configuration*** | | | | |
| *>>Logical Channel level* | | | BIT STRING (16) | Available when MAC-ehs is configured.<br>Indicates the logical channels for which the HS-DSCH Semi-Persistent operation is intended to be used.<br>Bit 0 is for logical channel 0, Bit1 is for logical channel 1, ...<br>Value '1' for a bit means that the HS-DSCH Semi-Persistent operation is allowed. Bit 0 is the first/leftmost bit of the bit string. |
| *>> Priority Queue level* | | | BIT STRING (8) | Indicates the Priority Queues for which the HS-DSCH Semi-Persistent operation is intended to be used.<br>Bit 0 is for prority queue 0, Bit1 is for priority queue 1, ...<br>Value '1' for a bit means that the HS-DSCH Semi-Persistent operation is allowed. Bit 0 is the first/leftmost bit of the bit string. |

| Range Bound | Explanation |
|---|---|
| *maxnoofHS-DSCHTBSsLCR* | Maximum number of HS-DSCH Transport Block Sizes |
| *maxnoofRepetitionPeriodLCR* | Maximum number of Repetition Period for 1.28Mcps TDD |
| *maxnoofTBSsMapping* | Maximum number of Transport Block Size mapping index on HS-SCCH. |

## 9.2.3.66 E-DCH Semi-Persistent scheduling Information LCR

The *E-DCH Semi-Persistent scheduling Information LCR* IE defines the parameters used for E-DCH semi-Persistent scheduling for 1.28 Mcps TDD (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Repetition Period list** | | *1..<maxnoofRepetitionPeriodLCR>* | | |
| >Repetition Period Index | M | | INTEGER (0.. maxnoofRepetitionPeriodLCR-1) | |
| >Repetition Period | M | | ENUMERATED (1, 2, 4, 8, 16, 32, 64,…) | Units of subframes |
| >Repetition Length | O | | INTEGER (1..63)) | Absence means Repetition Length equal to 1. |
| E-DCH Semi-Persistent scheduling Indicator | M | | BIT STRING (16) | Indicates the logical channels for which the E-DCH Semi-Persistent operation is intended to be used.<br>Bit 0 is for logical channel 0, Bit1 is for logical channel 1, ...<br>Value '1' for a bit means that the HS-DSCH Semi-Persistent |

| | | | | |
|---|---|---|---|---|
| | | | | operation is allowed. Bit 0 is the first/leftmost bit of the bit string. |
| E-DCH Semi-Persistent Resource Reservation Indicator | O | | ENUMERATED(Reserve) | Reserve means the E-DCH Semi-Persistent Resource is required to be reserved and be informed via response message. |

| Range Bound | Explanation |
|---|---|
| *maxnoofRepetitionPeriodLCR* | Maximum number of Repetition Period for 1.28Mcps TDD |

## 9.2.3.67 E-DCH Semi-Persistent scheduling Information to modify LCR

The *E-DCH Semi-Persistent scheduling Information to modify LCR* IE is used for the modification of E-DCH Semi-Persistent scheduling information for 1.28 Mcps TDD (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Repetition Period list** | | *0..<maxnoofRepetitionPeriodLCR>* | | |
| >Repetition Period Index | M | | INTEGER (0.. *maxnoofRepetitionPeriodLCR-1*) | |
| >Repetition Period | M | | ENUMERATED (1, 2, 4, 8, 16, 32, 64,…) | Units of subframes |
| >Repetition Length | O | | INTEGER (1..63)) | Absence means Repetition Length equal to 1. |
| E-DCH Semi-Persistent scheduling Indicator | O | | BIT STRING (16) | Indicates the logical channels for which the E-DCH Semi-Persistent operation is intended to be used. Bit 0 is for logical channel 0, Bit1 is for logical channel 1, ... Value '1' for a bit means that the HS-DSCH Semi-Persistent operation is allowed. Bit 0 is the first/leftmost bit of the bit string. |
| E-DCH Semi-Persistent Resource Reservation Indicator | O | | ENUMERATED(Reserve) | Reserve means the E-DCH Semi-Persistent Resource is required to be reserved and be informed via response message. |

| Range Bound | Explanation |
|---|---|
| *maxnoofRepetitionPeriodLCR* | Maximum number of Repetition Period for 1.28Mcps TDD |

## 9.2.3.68 HS-DSCH Semi-Persistent scheduling Information Response LCR

The *HS-DSCH Semi-Persistent scheduling Information Response LCR* IE provides information for HS-DSCH Semi-Persistent scheduling determined within the Node B (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **HS-SICH information for HS-DSCH Semi-Persistent Scheduling operation** | | *1..< maxnoofHS-* | | |

| | | | | |
|---|---|---|---|---|
| | | *SICHforSPS>* | | |
| >HS-SICH mapping index | M | | INTEGER (0.. maxnoofHS-SICHforSPS-1) | |
| >CHIOCE *HS-SICH type* | | | | |
| *>>HS-SCCH associated HS-SICH* | | | | |
| >>>HS-SICH ID | M | | HS SICH ID 9.2.3.3ad | |
| *>>Non-HS-SCCH associated HS-SICH* | | | | |
| >>>Time Slot LCR | M | | 9.2.3.12a | |
| >>>Midamble shift LCR | M | | 9.2.3.4C | |
| >>>TDD Channelisation Code | M | | 9.2.3.8 | |
| **Allcoated HS-PDSCH Semi-persistent resource** | | *0..1* | | |
| >Repetition Period Index | M | | INTEGER (0.. maxnoofRepetitionPeriodLCR-1) | |
| >Repetition Length for HS-PDSCH Semi-persistent Resouce | O | | INTEGER (1..63)) | Absence means Repetition Length equal to 1. |
| >HS-PDSCH offset | M | | INTEGER (0..63)) | Units of subframes |
| >HS-PDSCH Midamble Configuation | M | | Midamble Shift LCR 9.2.3.7A | |
| >Timeslot Resource Related Information | M | | BIT STRING(5) | Each bit indicates availability of a timeslot, where the bit 0 corresponds to TS2, the bit 1 is TS3, the bit 3 is TS4… bit 5 corresponds to TS6.<br>The value 1 of a bit indicates that the corresponding timeslot is available.<br>Bit 0 is the first/leftmost bit of the bit string. |
| >Start Code | M | | TDD Channelisation Code 9.2.3.19 | |
| >End Code | M | | TDD Channelisation Code 9.2.3.19 | |
| >Transport Block Size Index | M | | INTEGER (0.. maxnoofTBSsMapping-1) | |
| >Modulation type | M | | ENUMERATED (QPSK, 16QAM) | |
| >HS-SICH mapping index | M | | INTEGER (0.. maxnoofHS-SICHforSPS-1) | |
| Buffer Size for HS-DSCH Semi-Persistent scheduling | O | | ENUMERATED (800..304000,…) | Indicats the buffer size that shall be reserved for HS-DSCH semi-persistent scheduling operation.<br><br>800 .. 16000 by step of 800, 17600 .. 32000 by step of 1600, 36000 .. 80000 by step of 4000, 88000 .. 160000 by step of 8000, 176000 .. 304000 by step of 16000 |
| Number of Processes for HS-DSCH Semi-Persistent scheduling | O | | INTEGER (1..16) | |

| Range Bound | Explanation |
|---|---|
| *maxnoofHS-SICHforSPS* | Maximum number of HS-SICH for HS-DSCH Semi-Persistent scheduling operation |
| *maxnoofTBSsMapping* | Maximum number of Transport Block Size mapping index on HS-SCCH. |

### 9.2.3.69 E-DCH Semi-Persistent scheduling Information Response LCR

The *E-DCH Semi-Persistent scheduling Information Response LCR* IE provides information for E-DCH Semi-Persistent scheduling information determined within the Node B (see ref. [21]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Allcoated E-DCH Semi-persistent resource** | | *0..1* | | |
| >Timeslot Resource Related Information LCR | M | | 9.2.3.54a | |
| >Power Resource Related Information | M | | 9.2.3.55 | |
| >Repetition Period Index | M | | INTEGER (0.. maxnoofRepetitionPeriodLCR-1) | |
| >Repetition Length | M | | INTEGER (1..63)) | Absence means Repetition Length equal to 1. |
| >Subframe Number | M | | ENUMERATED ( 0,1) | Used to indicate from which subframe of the Radio Frame indicated by TDD E-PUCH Offset IE the physical resources are assigned to the E-DCH Non-scheduled Grant. |
| >TDD E-PUCH Offset | M | | 9.2.3.56 | |
| >TDD Channelisation Code | M | | 9.2.3.19 | |
| >NE-UCCH | M | | INTEGER (1..8) | Number of E-UCCH and TPC instances within an E-DCH TTI. Details are described in [19]. |
| **E-DCH SPS E-HICH information** | | *0..1* | | |
| >CHOICE *E-HICH configuration* | M | | | |
| *>>same as scheduled E-HICH* | | | | |
| >>> EI | | | INTEGER (0..3) | |
| *>>explicit* | | | | |
| >>>Time Slot LCR | M | | 9.2.3.12a | |
| >>>Midamble Shift LCR | M | | 9.2.3.4C | |
| >>>TDD Channelisation Code | M | | 9.2.3.8 | |
| >Signature Sequence Group Index | M | | INTEGER (0..19) | |

### 9.2.3.70 HS-DSCH Semi-Persistent scheduling Deactivate Indicator LCR

The *HS-DSCH Semi-Persistent scheduling Deactivate Indicator LCR* IE is used to deactivate HS-DSCH Semi-Persistent scheduling operation for 1.28 Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| HS-DSCH Semi-Persistent scheduling Deactivate Indicator | M | | NULL | |

### 9.2.3.71 E-DCH Semi-Persistent scheduling Deactivate Indicator LCR

The *E-DCH Semi-Persistent scheduling Deactivate Indicator LCR* IE is used to deactivate E-DCH Semi-Persistent schedulung operation for 1.28 Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| E-DCH Semi-Persistent scheduling Deactivate Indicator | M | | NULL | |

### 9.2.3.72 HS-SICH Reference Signal Information

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Midamble Configuration LCR | M | | ENUMERATED (2, 4, 6, 8, 10, 12, 14, 16, ...) | As defined in [19] | | |
| Midamble Shift | M | | INTEGER (0..15) | | | |
| Time Slot LCR | M | | 9.2.3.12a | | | |

### 9.2.3.73 Cell Portion LCR ID

Cell Portion LCR ID is the unique identifier for a cell portion within a cell for 1.28 Mcps TDD. See [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Portion LCR ID | | | INTEGER (0..255,…) | |

### 9.2.3.74 TS0 HS-PDSCH Indication LCR

Only for 1.28Mcps TDD. The *TS0 HS-PDSCH Indication LCR* IE indicates the first bit of timeslot information included in the HS-SCCH can be used to allocate the HS-PDSCH resources on TS0.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| TS0 HS-PDSCH Indication LCR | | | NULL | |

### 9.2.3.75 DCH Measurement Occasion Information

The *DCH Measurement Occasion Information* IE indicates Measurement Occasion Information used for inter-frequency/ inter-RAT measurements in CELL_DCH state for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CELL_DCH measurement occasion pattern sequence | | *1 to <maxDCHMeas* | | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| | | *urement Occasio nPattern Sequenc e>* | | |
| >Pattern sequence identifier | M | | Integer(1.. maxDCHMeas urementOccasi onPatternSequ ence) | |
| >Status Flag | M | | Enumerated(ac tivate, deactivate) | This flag indicates whether the measurement occasion pattern sequence shall be activated or deactivated. |
| >Measurement purpose | O | | BIT STRING (5) | Measurement Purpose.<br>Bit 0 is for Inter-frequency measurement.<br>Bit 1 is for GSM carrier RSSI measurement.<br>Bit 2 is for Initial BSIC identification.<br>Bit 3 is for BSIC re-confirmation.<br>Bit 4 is for E-UTRA measurement.<br><br>The value 1 of a bit means that the measurement occasion pattern sequence is applicable for the corresponding type of measurement.<br><br>Bit 0 is the first/leftmost bit of the bit string. |
| >Measurement occasion pattern sequence parameters | O | | | |
| >>k | M | | Integer(1..9) | CELL_DCH measurement occasion cycle length coefficient. The actual measurement occasion period equal to $2^k$ radio frames. Value 0 indicates continuous allocation. |
| >>Offset | M | | Integer(0..511) | In frames. The measurement occasion position in the measurement period. |
| >>M_Length | M | | Integer(1..512) | The measurement occasion length in frames starting from the Offset. |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| >>Timeslot Bitmap | M | | Bit string (7) | Bitmap indicating which of the timeslot(s) is/are allocated for measurement.<br><br>Bit 0 is for timeslot 0.<br>Bit 1 is for timeslot 1.<br>Bit 2 is for timeslot 2.<br>Bit 3 is for timeslot 3.<br>Bit 4 is for timeslot 4.<br>Bit 5 is for timeslot 5.<br>Bit 6 is for timeslot 6.<br><br>The value 0 of a bit means the corresponding timeslot is not used for measurement. The value 1 of a bit means the corresponding timeslot is used for measurement.<br><br>Bit 0 is the first/leftmost bit of the bit string. |

| Condition | Explanation |
|---|---|
| Measurementoccasionpatternsequence parameters | The IE shall be present if *Measurement occasion pattern sequence parameters* IE is present. |

| Range Bound | Explanation |
|---|---|
| maxDCHMeasurementOccasionPatternSequence | Maximum number of measurement occasion pattern sequence |

### 9.2.3.76 DCH Measurement Type Indicator

The *DCH Measurement Type Indicator* IE indicates the measurement type(s) which the DRNS shall configured for the UE with TS0 enhancement capability in CELL_DCH state for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Measurement type | M | | BIT STRING (5) | Measurement type. Bit 0 is for Inter-frequency measurement.<br>Bit 1 is for GSM carrier RSSI measurement.<br>Bit 2 is for Initial BSIC identification.<br>Bit 3 is for BSIC re-confirmation.<br>Bit 4 is for E-UTRA measurement.<br><br>The value 1 of a bit means that the measurement occasion pattern sequence should be configured for the |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| | | | | corresponding type of measurement.<br><br>Bit 0 is the first/leftmost bit of the bit string. |

# 9.3 Message and Information Element Abstract Syntax (with ASN.1)

## 9.3.0 General

Subclause 9.3 presents the Abstract Syntax of RNSAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclause 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of RNSAP messages. RNSAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a RNSAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.

- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value “mandatory”. An IE may appear at most once if the presence field in an object has value “optional” or “conditional”. If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list in which the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a RNSAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

## 9.3.1 Usage of Private Message Mechanism for Non-standard Use

The private message mechanism for non-standard use may be used:

- for special operator (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multivendor inter-operability.

- by vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

## 9.3.2 Elementary Procedure Definitions

```
-- **************************************************************
--
-- Elementary Procedure definitions
--
-- **************************************************************
```

```
RNSAP-PDU-Descriptions {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Descriptions (0) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Criticality,
    ProcedureID,
    TransactionID
FROM RNSAP-CommonDataTypes

    CommonMeasurementFailureIndication,
    CommonMeasurementInitiationFailure,
    CommonMeasurementInitiationRequest,
    CommonMeasurementInitiationResponse,
    CommonMeasurementReport,
    CommonMeasurementTerminationRequest,
    CommonTransportChannelResourcesFailure,
    CommonTransportChannelResourcesRequest,
    CommonTransportChannelResourcesReleaseRequest,
    CommonTransportChannelResourcesResponseFDD,
    CommonTransportChannelResourcesResponseTDD,
    CompressedModeCommand,
    DedicatedMeasurementFailureIndication,
    DedicatedMeasurementInitiationFailure,
    DedicatedMeasurementInitiationRequest,
    DedicatedMeasurementInitiationResponse,
    DedicatedMeasurementReport,
    DedicatedMeasurementTerminationRequest,
    DirectInformationTransfer,
    DL-PowerControlRequest,
    DL-PowerTimeslotControlRequest,
    DownlinkSignallingTransferRequest,
    ErrorIndication,
    EnhancedRelocationCancel,
    EnhancedRelocationFailure,
    EnhancedRelocationRequest,
    EnhancedRelocationResponse,
    EnhancedRelocationSignallingTransfer,
    EnhancedRelocationRelease,
    InformationExchangeFailureIndication,
    InformationExchangeInitiationFailure,
    InformationExchangeInitiationRequest,
    InformationExchangeInitiationResponse,
    InformationExchangeTerminationRequest,
```

```
    InformationReport,
    IurDeactivateTrace,
    IurInvokeTrace,
    MBMSAttachCommand,
    MBMSDetachCommand,
    MBSFNMCCHInformation,
    PagingRequest,
    PhysicalChannelReconfigurationCommand,
    PhysicalChannelReconfigurationFailure,
    PhysicalChannelReconfigurationRequestFDD,
    PhysicalChannelReconfigurationRequestTDD,
    PrivateMessage,
    RadioLinkActivationCommandFDD,
    RadioLinkActivationCommandTDD,
    RadioLinkAdditionFailureFDD,
    RadioLinkAdditionFailureTDD,
    RadioLinkAdditionRequestFDD,
    RadioLinkAdditionRequestTDD,
    RadioLinkAdditionResponseFDD,
    RadioLinkAdditionResponseTDD,
    RadioLinkCongestionIndication,
    RadioLinkDeletionRequest,
    RadioLinkDeletionResponse,
    RadioLinkFailureIndication,
    RadioLinkParameterUpdateIndicationFDD,
    RadioLinkParameterUpdateIndicationTDD,
    RadioLinkPreemptionRequiredIndication,
    RadioLinkReconfigurationCancel,
    RadioLinkReconfigurationCommit,
    RadioLinkReconfigurationFailure,
    RadioLinkReconfigurationPrepareFDD,
    RadioLinkReconfigurationPrepareTDD,
    RadioLinkReconfigurationReadyFDD,
    RadioLinkReconfigurationReadyTDD,
    RadioLinkReconfigurationRequestFDD,
    RadioLinkReconfigurationRequestTDD,
    RadioLinkReconfigurationResponseFDD,
    RadioLinkReconfigurationResponseTDD,
    RadioLinkRestoreIndication,
    RadioLinkSetupFailureFDD,
    RadioLinkSetupFailureTDD,
    RadioLinkSetupRequestFDD,
    RadioLinkSetupRequestTDD,
    RadioLinkSetupResponseFDD,
    RadioLinkSetupResponseTDD,
    RelocationCommit,
    ResetRequest,
    ResetResponse,
    UEMeasurementFailureIndication,
    UEMeasurementInitiationFailure,
    UEMeasurementInitiationRequest,
    UEMeasurementInitiationResponse,
    UEMeasurementReport,
    UEMeasurementTerminationRequest,
```

```
    SecondaryULFrequencyReport,
    SecondaryULFrequencyUpdateIndication,
    UplinkSignallingTransferIndicationFDD,
    UplinkSignallingTransferIndicationTDD,
    GERANUplinkSignallingTransferIndication
FROM RNSAP-PDU-Contents

    id-commonMeasurementFailure,
    id-commonMeasurementInitiation,
    id-commonMeasurementReporting,
    id-commonMeasurementTermination,
    id-commonTransportChannelResourcesInitialisation,
    id-commonTransportChannelResourcesRelease,
    id-compressedModeCommand,
    id-downlinkPowerControl,
    id-downlinkSignallingTransfer,
    id-downlinkPowerTimeslotControl,
    id-enhancedRelocation,
    id-enhancedRelocationCancel,
    id-enhancedRelocationSignallingTransfer,
    id-enhancedRelocationRelease,
    id-errorIndication,
    id-informationExchangeFailure,
    id-informationExchangeInitiation,
    id-informationReporting,
    id-informationExchangeTermination,
    id-iurDeactivateTrace,
    id-iurInvokeTrace,
    id-dedicatedMeasurementFailure,
    id-dedicatedMeasurementInitiation,
    id-dedicatedMeasurementReporting,
    id-dedicatedMeasurementTermination,
    id-directInformationTransfer,
    id-mBMSAttach,
    id-mBMSDetach,
    id-mBSFNMCCHInformation,
    id-paging,
    id-physicalChannelReconfiguration,
    id-privateMessage,
    id-radioLinkActivation,
    id-radioLinkAddition,
    id-radioLinkCongestion,
    id-radioLinkDeletion,
    id-radioLinkFailure,
    id-radioLinkParameterUpdate,
    id-radioLinkPreemption,
    id-radioLinkRestoration,
    id-radioLinkSetup,
    id-relocationCommit,
    id-reset,
    id-synchronisedRadioLinkReconfigurationCancellation,
    id-synchronisedRadioLinkReconfigurationCommit,
    id-synchronisedRadioLinkReconfigurationPreparation,
    id-uEMeasurementFailure,
```

```
    id-uEMeasurementInitiation,
    id-uEMeasurementReporting,
    id-uEMeasurementTermination,
    id-secondaryULFrequencyReporting,
    id-secondaryULFrequencyUpdate,
    id-unSynchronisedRadioLinkReconfiguration,
    id-uplinkSignallingTransfer,
    id-gERANuplinkSignallingTransfer
FROM RNSAP-Constants;

-- **************************************************************
--
-- Interface Elementary Procedure Class
--
-- **************************************************************

RNSAP-ELEMENTARY-PROCEDURE ::= CLASS {
    &InitiatingMessage              ,
    &SuccessfulOutcome              OPTIONAL,
    &UnsuccessfulOutcome                OPTIONAL,
    &Outcome                    OPTIONAL,
    &procedureID            ProcedureID     UNIQUE,
    &criticality            Criticality     DEFAULT ignore
}
WITH SYNTAX {
    INITIATING MESSAGE      &InitiatingMessage
    [SUCCESSFUL OUTCOME     &SuccessfulOutcome]
    [UNSUCCESSFUL OUTCOME       &UnsuccessfulOutcome]
    [OUTCOME            &Outcome]
    PROCEDURE ID            &procedureID
    [CRITICALITY            &criticality]
}

-- **************************************************************
--
-- Interface PDU Definition
--
-- **************************************************************

RNSAP-PDU ::= CHOICE {
    initiatingMessage   InitiatingMessage,
    successfulOutcome   SuccessfulOutcome,
    unsuccessfulOutcome UnsuccessfulOutcome,
    outcome         Outcome,
    ...
}

InitiatingMessage ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID     ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&InitiatingMessage   ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}
```

```
SuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID     ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome   ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

UnsuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID     ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

Outcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID     ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&Outcome     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

-- **************************************************************
--
-- Interface Elementary Procedure List
--
-- **************************************************************

RNSAP-ELEMENTARY-PROCEDURES RNSAP-ELEMENTARY-PROCEDURE ::= {
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-1         |
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-2         |
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-3         ,
    ...
}

RNSAP-ELEMENTARY-PROCEDURES-CLASS-1 RNSAP-ELEMENTARY-PROCEDURE ::= {
    radioLinkSetupFDD                                       |
    radioLinkSetupTDD                                       |
    radioLinkAdditionFDD                                    |
    radioLinkAdditionTDD                                    |
    radioLinkDeletion                                       |
    synchronisedRadioLinkReconfigurationPreparationFDD      |
    synchronisedRadioLinkReconfigurationPreparationTDD      |
    unSynchronisedRadioLinkReconfigurationFDD               |
    unSynchronisedRadioLinkReconfigurationTDD               |
    physicalChannelReconfigurationFDD                       |
    physicalChannelReconfigurationTDD                       |
    dedicatedMeasurementInitiation                          |
    commonTransportChannelResourcesInitialisationFDD        |
    commonTransportChannelResourcesInitialisationTDD        ,
    ...,
    commonMeasurementInitiation                             |
    informationExchangeInitiation                           |
    reset                                                   |
    uEMeasurementInitiation                                 |
```

```
    enhancedRelocation
}

RNSAP-ELEMENTARY-PROCEDURES-CLASS-2 RNSAP-ELEMENTARY-PROCEDURE ::= {
    uplinkSignallingTransferFDD                         |
    uplinkSignallingTransferTDD                         |
    downlinkSignallingTransfer                          |
    relocationCommit                                    |
    paging                                              |
    synchronisedRadioLinkReconfigurationCommit          |
    synchronisedRadioLinkReconfigurationCancellation    |
    radioLinkFailure                                    |
    radioLinkPreemption                                 |
    radioLinkRestoration                                |
    dedicatedMeasurementReporting                       |
    dedicatedMeasurementTermination                     |
    dedicatedMeasurementFailure                         |
    downlinkPowerControlFDD                             |
    downlinkPowerTimeslotControl                        |
    compressedModeCommandFDD                            |
    commonTransportChannelResourcesRelease              |
    errorIndication                                     |
    privateMessage                                     ,
    ...,
    radioLinkCongestion                                 |
    commonMeasurementFailure                            |
    commonMeasurementReporting                          |
    commonMeasurementTermination                        |
    informationExchangeFailure                          |
    informationExchangeTermination                      |
    informationReporting                                |
    radioLinkActivationFDD                              |
    radioLinkActivationTDD                              |
    gERANuplinkSignallingTransfer                       |
    radioLinkParameterUpdateFDD                         |
    radioLinkParameterUpdateTDD                         |
    uEMeasurementReporting                              |
    uEMeasurementTermination                            |
    uEMeasurementFailure                                |
    iurInvokeTrace                                      |
    iurDeactivateTrace                                  |
    mBMSAttach                                          |
    mBMSDetach                                          |
    directInformationTransfer                           |
    enhancedRelocationCancel                            |
    enhancedRelocationSignallingTransfer                |
    enhancedRelocationRelease                           |
    mBSFNMCCHInformation                                |
    secondaryULFrequencyReportingFDD                    |
    secondaryULFrequencyUpdateFDD
```

```
}

RNSAP-ELEMENTARY-PROCEDURES-CLASS-3 RNSAP-ELEMENTARY-PROCEDURE ::= {
    ...
}

-- **************************************************************
--
-- Interface Elementary Procedures
--
-- **************************************************************

radioLinkSetupFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkSetupRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkSetupResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureFDD
    PROCEDURE ID        { procedureCode id-radioLinkSetup, ddMode fdd }
    CRITICALITY     reject
}

radioLinkSetupTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkSetupRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkSetupResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureTDD
    PROCEDURE ID        { procedureCode id-radioLinkSetup, ddMode tdd }
    CRITICALITY     reject
}

radioLinkAdditionFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkAdditionRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkAdditionResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureFDD
    PROCEDURE ID        { procedureCode id-radioLinkAddition , ddMode fdd }
    CRITICALITY     reject
}

radioLinkAdditionTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkAdditionResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureTDD
    PROCEDURE ID        { procedureCode id-radioLinkAddition , ddMode tdd }
    CRITICALITY     reject
}

radioLinkDeletion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME  RadioLinkDeletionResponse
    PROCEDURE ID        { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY     reject
}

synchronisedRadioLinkReconfigurationPreparationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationReadyFDD
```

```
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    CRITICALITY     reject
}

synchronisedRadioLinkReconfigurationPreparationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationReadyTDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    CRITICALITY     reject
}

unSynchronisedRadioLinkReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    CRITICALITY     reject
}

unSynchronisedRadioLinkReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    CRITICALITY     reject
}

physicalChannelReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  PhysicalChannelReconfigurationCommand
    UNSUCCESSFUL OUTCOME    PhysicalChannelReconfigurationFailure
    PROCEDURE ID        { procedureCode id-physicalChannelReconfiguration, ddMode fdd }
    CRITICALITY     reject
}

physicalChannelReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  PhysicalChannelReconfigurationCommand
    UNSUCCESSFUL OUTCOME    PhysicalChannelReconfigurationFailure
    PROCEDURE ID        { procedureCode id-physicalChannelReconfiguration, ddMode tdd }
    CRITICALITY     reject
}

dedicatedMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME  DedicatedMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    DedicatedMeasurementInitiationFailure
    PROCEDURE ID        { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
    CRITICALITY     reject
}

commonTransportChannelResourcesInitialisationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
```

```
    INITIATING MESSAGE  CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME  CommonTransportChannelResourcesResponseFDD
    UNSUCCESSFUL OUTCOME    CommonTransportChannelResourcesFailure
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode fdd }
    CRITICALITY     reject
}

commonTransportChannelResourcesInitialisationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME  CommonTransportChannelResourcesResponseTDD
    UNSUCCESSFUL OUTCOME    CommonTransportChannelResourcesFailure
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode tdd }
    CRITICALITY     reject
}

uplinkSignallingTransferFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UplinkSignallingTransferIndicationFDD
    PROCEDURE ID        { procedureCode id-uplinkSignallingTransfer, ddMode fdd }
    CRITICALITY     ignore
}

uplinkSignallingTransferTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UplinkSignallingTransferIndicationTDD
    PROCEDURE ID        { procedureCode id-uplinkSignallingTransfer, ddMode tdd }
    CRITICALITY     ignore
}

downlinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DownlinkSignallingTransferRequest
    PROCEDURE ID        { procedureCode id-downlinkSignallingTransfer, ddMode common }
    CRITICALITY     ignore
}

relocationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RelocationCommit
    PROCEDURE ID        { procedureCode id-relocationCommit, ddMode common }
    CRITICALITY     ignore
}

paging RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PagingRequest
    PROCEDURE ID        { procedureCode id-paging, ddMode common }
    CRITICALITY     ignore
}

synchronisedRadioLinkReconfigurationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationCommit
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY     ignore
}

synchronisedRadioLinkReconfigurationCancellation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationCancel
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
```

```
    CRITICALITY     ignore
}

radioLinkFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkFailureIndication
    PROCEDURE ID        { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY     ignore
}

radioLinkPreemption RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkPreemptionRequiredIndication
    PROCEDURE ID        { procedureCode id-radioLinkPreemption, ddMode common }
    CRITICALITY     ignore
}

radioLinkRestoration RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkRestoreIndication
    PROCEDURE ID        { procedureCode id-radioLinkRestoration, ddMode common }
    CRITICALITY     ignore
}

dedicatedMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementReport
    PROCEDURE ID        { procedureCode id-dedicatedMeasurementReporting, ddMode common }
    CRITICALITY     ignore
}

dedicatedMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementTerminationRequest
    PROCEDURE ID        { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    CRITICALITY     ignore
}

dedicatedMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementFailureIndication
    PROCEDURE ID        { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY     ignore
}

radioLinkCongestion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkCongestionIndication
    PROCEDURE ID        { procedureCode id-radioLinkCongestion, ddMode common }
    CRITICALITY     ignore
}

downlinkPowerControlFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DL-PowerControlRequest
    PROCEDURE ID        { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY     ignore
}

downlinkPowerTimeslotControl RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DL-PowerTimeslotControlRequest
    PROCEDURE ID        { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
```

```
    CRITICALITY     ignore
}

compressedModeCommandFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CompressedModeCommand
    PROCEDURE ID        { procedureCode id-compressedModeCommand, ddMode fdd }
    CRITICALITY     ignore
}

commonTransportChannelResourcesRelease RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesReleaseRequest
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesRelease, ddMode common }
    CRITICALITY     ignore
}

errorIndication RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  ErrorIndication
    PROCEDURE ID        { procedureCode id-errorIndication, ddMode common }
    CRITICALITY     ignore
}

commonMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME      CommonMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    CommonMeasurementInitiationFailure
    PROCEDURE ID            { procedureCode id-commonMeasurementInitiation, ddMode common }
    CRITICALITY             reject
}

commonMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonMeasurementReport
    PROCEDURE ID        { procedureCode id-commonMeasurementReporting, ddMode common }
    CRITICALITY         ignore
}

commonMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonMeasurementTerminationRequest
    PROCEDURE ID        { procedureCode id-commonMeasurementTermination, ddMode common }
    CRITICALITY     ignore
}

commonMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonMeasurementFailureIndication
    PROCEDURE ID        { procedureCode id-commonMeasurementFailure, ddMode common }
    CRITICALITY     ignore
}

informationExchangeInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeInitiationRequest
    SUCCESSFUL OUTCOME      InformationExchangeInitiationResponse
    UNSUCCESSFUL OUTCOME    InformationExchangeInitiationFailure
    PROCEDURE ID            { procedureCode id-informationExchangeInitiation, ddMode common }
    CRITICALITY             reject
}
```

```
informationReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationReport
    PROCEDURE ID            { procedureCode id-informationReporting, ddMode common }
    CRITICALITY             ignore
}

informationExchangeTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeTerminationRequest
    PROCEDURE ID            { procedureCode id-informationExchangeTermination, ddMode common }
    CRITICALITY             ignore
}

informationExchangeFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeFailureIndication
    PROCEDURE ID            { procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY             ignore
}

privateMessage RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PrivateMessage
    PROCEDURE ID        { procedureCode id-privateMessage, ddMode common }
    CRITICALITY     ignore
}

reset RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ResetRequest
    SUCCESSFUL OUTCOME      ResetResponse
    PROCEDURE ID            { procedureCode id-reset, ddMode common }
    CRITICALITY             reject
}

radioLinkActivationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandFDD
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode fdd }
    CRITICALITY             ignore
}

radioLinkActivationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandTDD
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode tdd }
    CRITICALITY             ignore
}

gERANuplinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  GERANUplinkSignallingTransferIndication
    PROCEDURE ID        { procedureCode id-gERANuplinkSignallingTransfer, ddMode common }
    CRITICALITY     ignore
}

radioLinkParameterUpdateFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkParameterUpdateIndicationFDD
    PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
```

```
    CRITICALITY             ignore
}

radioLinkParameterUpdateTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkParameterUpdateIndicationTDD
    PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode tdd }
    CRITICALITY             ignore
}

uEMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UEMeasurementInitiationRequest
    SUCCESSFUL OUTCOME  UEMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    UEMeasurementInitiationFailure
    PROCEDURE ID        { procedureCode id-uEMeasurementInitiation, ddMode tdd }
    CRITICALITY     reject
}

uEMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UEMeasurementReport
    PROCEDURE ID        { procedureCode id-uEMeasurementReporting, ddMode tdd }
    CRITICALITY     ignore
}

uEMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UEMeasurementTerminationRequest
    PROCEDURE ID        { procedureCode id-uEMeasurementTermination, ddMode tdd }
    CRITICALITY     ignore
}

uEMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UEMeasurementFailureIndication
    PROCEDURE ID        { procedureCode id-uEMeasurementFailure, ddMode tdd }
    CRITICALITY     ignore
}

iurInvokeTrace RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  IurInvokeTrace
    PROCEDURE ID        { procedureCode id-iurInvokeTrace, ddMode common }
    CRITICALITY         ignore
}

iurDeactivateTrace RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  IurDeactivateTrace
    PROCEDURE ID        { procedureCode id-iurDeactivateTrace, ddMode common }
    CRITICALITY         ignore
}

mBMSAttach RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      MBMSAttachCommand
    PROCEDURE ID            { procedureCode id-mBMSAttach, ddMode common }
    CRITICALITY             ignore
}

mBMSDetach RNSAP-ELEMENTARY-PROCEDURE ::= {
```

```
    INITIATING MESSAGE      MBMSDetachCommand
    PROCEDURE ID            { procedureCode id-mBMSDetach, ddMode common }
    CRITICALITY             ignore
}

directInformationTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DirectInformationTransfer
    PROCEDURE ID            { procedureCode id-directInformationTransfer, ddMode common }
    CRITICALITY             ignore
}

enhancedRelocation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  EnhancedRelocationRequest
    SUCCESSFUL OUTCOME  EnhancedRelocationResponse
    UNSUCCESSFUL OUTCOME    EnhancedRelocationFailure
    PROCEDURE ID        { procedureCode id-enhancedRelocation, ddMode common }
    CRITICALITY     reject
}

enhancedRelocationCancel RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      EnhancedRelocationCancel
    PROCEDURE ID            { procedureCode id-enhancedRelocationCancel, ddMode common }
    CRITICALITY             ignore
}

enhancedRelocationSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      EnhancedRelocationSignallingTransfer
    PROCEDURE ID            { procedureCode id-enhancedRelocationSignallingTransfer, ddMode common }
    CRITICALITY             ignore
}

enhancedRelocationRelease RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      EnhancedRelocationRelease
    PROCEDURE ID            { procedureCode id-enhancedRelocationRelease, ddMode common }
    CRITICALITY             ignore
}

mBSFNMCCHInformation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      MBSFNMCCHInformation
    PROCEDURE ID            { procedureCode id-mBSFNMCCHInformation, ddMode common }
    CRITICALITY             reject
}

secondaryULFrequencyReportingFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      SecondaryULFrequencyReport
    PROCEDURE ID            { procedureCode id-secondaryULFrequencyReporting, ddMode fdd }
    CRITICALITY             ignore
}

secondaryULFrequencyUpdateFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      SecondaryULFrequencyUpdateIndication
    PROCEDURE ID            { procedureCode id-secondaryULFrequencyUpdate, ddMode fdd }
    CRITICALITY             ignore
}
```

```
END
```

## 9.3.3 PDU Definitions

```
-- **************************************************************
--
-- PDU definitions for RNSAP.
--
-- **************************************************************

RNSAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Active-Pattern-Sequence-Information,
    Active-MBMS-Bearer-Service-ListFDD,
    Active-MBMS-Bearer-Service-ListFDD-PFL,
    Active-MBMS-Bearer-Service-ListTDD,
    Active-MBMS-Bearer-Service-ListTDD-PFL,
    AllocationRetentionPriority,
    AllowedQueuingTime,
    Allowed-Rate-Information,
    AlphaValue,
    AlternativeFormatReportingIndicator,
    AntennaColocationIndicator,
    BLER,
    SCTD-Indicator,
    BindingID,
    C-ID,
    C-RNTI,
    CCTrCH-ID,
    CFN,
    CGI,
    ClosedLoopMode1-SupportIndicator,
    Closedlooptimingadjustmentmode,
    CN-CS-DomainIdentifier,
    CN-PS-DomainIdentifier,
    CNDomainType,
    Cause,
    CellCapabilityContainer-FDD,
    CellCapabilityContainerExtension-FDD,
```

```
    CellCapabilityContainer-TDD,
    CellCapabilityContainer-TDD-LCR,
    CellCapabilityContainer-TDD768,
    CellParameterID,
    CellPortionID,
    ChipOffset,
    CommonMeasurementAccuracy,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonMeasurementValueInformation,
    CommonTransportChannelResourcesInitialisationNotRequired,
    Common-EDCH-MAC-d-Flow-Specific-InformationFDD,
    Common-EDCH-Support-Indicator,
    CongestionCause,
    Continuous-Packet-Connectivity-DTX-DRX-Information,
    Continuous-Packet-Connectivity-HS-SCCH-Less-Information,
    Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response,
    CPC-Information,
    CoverageIndicator,
    CriticalityDiagnostics,
    CellPortionLCRID,
    D-RNTI,
    D-RNTI-ReleaseIndication,
    DCH-FDD-Information,
    DCH-ID,
    DCH-Indicator-For-E-DCH-HSDPA-Operation,
    DPCH-ID768,
    DCH-InformationResponse,
    DCH-TDD-Information,
    DL-DPCH-SlotFormat,
    DL-TimeslotISCP,
    DL-Power,
    DL-PowerBalancing-Information,
    DL-PowerBalancing-ActivationIndicator,
    DL-PowerBalancing-UpdatedIndicator,
    DL-ReferencePowerInformation,
    DL-ScramblingCode,
    DL-Timeslot-Information,
    DL-Timeslot-Information768,
    DL-TimeslotLCR-Information,
    DL-TimeSlot-ISCP-Info,
    DL-TimeSlot-ISCP-LCR-Information,
    DPC-Mode,
    DPC-Mode-Change-SupportIndicator,
    DPCH-ID,
    DL-DPCH-TimingAdjustment,
    DRXCycleLengthCoefficient,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    DedicatedMeasurementValueInformation,
    DelayedActivation,
    DelayedActivationUpdate,
    DiversityControlField,
    DiversityMode,
```

```
    DSCH-FlowControlInformation,
    DSCH-FlowControlItem,
    DSCH-TDD-Information,
    DSCH-ID,
    DSCH-RNTI,
    EDCH-FDD-Information,
    EDCH-FDD-InformationResponse,
    EDCH-FDD-Information-To-Modify,
    EDCH-FDD-DL-ControlChannelInformation,
    EDCH-DDI-Value,
    EDCH-MACdFlow-ID,
    EDCH-MACdFlow-Specific-InfoList,
    EDCH-MACdFlows-To-Delete,
    EDCH-MACdFlows-Information,
    EDCH-RL-Indication,
    EDCH-Serving-RL,
    E-DCH-Serving-cell-change-informationResponse,
    EDPCH-Information-FDD,
    EDPCH-Information-RLReconfPrepare-FDD,
    EDPCH-Information-RLReconfRequest-FDD,
    E-DCH-FDD-Update-Information,
    E-DPCCH-PO,
    E-RGCH-2-IndexStepThreshold,
    E-RGCH-3-IndexStepThreshold,
    E-RNTI,
    E-TFCS-Information,
    E-TTI,
    Enhanced-FACH-Support-Indicator,
    Enhanced-FACH-Information-ResponseFDD,
    Enhanced-PCH-Capability,
    ExtendedPropagationDelay,
    Extended-RNC-ID,
    SchedulingPriorityIndicator,
    Enhanced-PrimaryCPICH-EcNo,
    F-DPCH-SlotFormat,
    F-DPCH-SlotFormatSupportRequest,
    FACH-FlowControlInformation,
    Fast-Reconfiguration-Mode,
    Fast-Reconfiguration-Permission,
    FDD-DCHs-to-Modify,
    FDD-DL-ChannelisationCodeNumber,
    FDD-DL-CodeInformation,
    FDD-TPC-DownlinkStepSize,
    FirstRLS-Indicator,
    FNReportingIndicator,
    FrameHandlingPriority,
    FrameOffset,
    GA-AccessPointPosition,
    GA-Cell,
    GA-CellAdditionalShapes,
    HARQ-Info-for-E-DCH,
    HCS-Prio,
    HSDSCH-Configured-Indicator,
    HSDSCH-FDD-Information,
```

```
    HSDSCH-FDD-Information-Response,
    HSDSCH-FDD-Update-Information,
    HSDSCH-TDD-Update-Information,
    HSDSCH-Information-to-Modify,
    HSDSCH-Information-to-Modify-Unsynchronised,
    HSDSCH-MACdFlow-ID,
    HSDSCH-MACdFlows-Information,
    HSDSCH-MACdFlows-to-Delete,
    HSDSCH-Physical-Layer-Category,
    HSDSCH-RNTI,
    HS-DSCH-serving-cell-change-information,
    HS-DSCH-serving-cell-change-informationResponse,
    HSDSCH-TDD-Information,
    HSDSCH-TDD-Information-Response,
    HS-SICH-ID,
    IMSI,
    InformationExchangeID,
    InformationReportCharacteristics,
    InformationType,
    Initial-DL-DPCH-TimingAdjustment-Allowed,
    InnerLoopDLPCStatus,
    Inter-Frequency-Cell-List,
    L3-Information,
    LimitedPowerIncrease,
    MaximumAllowedULTxPower,
    MaxNrDLPhysicalchannels,
    MaxNrDLPhysicalchannelsTS,
    MaxNrDLPhysicalchannels768,
    MaxNrDLPhysicalchannelsTS768,
    MaxNrOfUL-DPCHs,
    MaxNrTimeslots,
    MaxNrULPhysicalchannels,
    MACes-Guaranteed-Bitrate,
    MaxNr-Retransmissions-EDCH,
    Max-Set-E-DPDCHs,
    Max-UE-DTX-Cycle,
    MeasurementFilterCoefficient,
    MeasurementID,
    MeasurementRecoveryBehavior,
    MeasurementRecoveryReportingIndicator,
    MeasurementRecoverySupportIndicator,
    MBMS-Bearer-Service-List,
    MBSFN-Cluster-Identity,
    MCCH-Configuration-Info,
    MCCH-Message-List,
    MBSFN-Scheduling-Transmission-Time-Interval-Info-List,
    MidambleAllocationMode,
    MidambleShiftAndBurstType,
    MidambleShiftAndBurstType768,
    MidambleShiftLCR,
    MinimumSpreadingFactor,
    MinimumSpreadingFactor768,
    MinUL-ChannelisationCodeLength,
    Multiple-PLMN-List,
```

```
    MultiplexingPosition,
    NeighbouringFDDCellMeasurementInformation,
    NeighbouringTDDCellMeasurementInformation,
    NeighbouringTDDCellMeasurementInformation768,
    Neighbouring-GSM-CellInformation,
    Neighbouring-UMTS-CellInformation,
    NeighbouringTDDCellMeasurementInformationLCR,
    Neighbouring-E-UTRA-CellInformation,
    NrOfDLchannelisationcodes,
    PagingCause,
    PagingRecordType,
    PartialReportingIndicator,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PC-Preamble,
    Permanent-NAS-UE-Identity,
    Phase-Reference-Update-Indicator,
    PowerAdjustmentType,
    PowerOffset,
    PrimaryCCPCH-RSCP,
    PrimaryCPICH-EcNo,
    PrimaryCPICH-Power,
    Primary-CPICH-Usage-For-Channel-Estimation,
    PrimaryScramblingCode,
    PropagationDelay,
    ProvidedInformation,
    PunctureLimit,
    QE-Selector,
    RANAP-EnhancedRelocationInformationRequest,
    RANAP-EnhancedRelocationInformationResponse,
    RANAP-RelocationInformation,
    RB-Info,
    Released-CN-Domain,
    RL-ID,
    RL-Set-ID,
    RL-Specific-EDCH-Information,
    RNC-ID,
    RepetitionLength,
    RepetitionPeriod,
    ReportCharacteristics,
    Received-total-wide-band-power,
    RequestedDataValue,
    RequestedDataValueInformation,
    RL-Specific-DCH-Info,
    RxTimingDeviationForTA,
    RxTimingDeviationForTA768,
    S-RNTI,
    S-RNTI-Group,
    SCH-TimeSlot,
    SAI,
    SFN,
    Secondary-CCPCH-Info-TDD,
    Secondary-CCPCH-Info-TDD768,
    Secondary-CCPCH-System-Information-MBMS,
```

```
    Secondary-CPICH-Information,
    Secondary-CPICH-Information-Change,
    Secondary-LCR-CCPCH-Info-TDD,
    Secondary-Serving-Cell-List,
    SNA-Information,
    SpecialBurstScheduling,
    SSDT-SupportIndicator,
    STTD-SupportIndicator,
    AdjustmentPeriod,
    ScaledAdjustmentRatio,
    MaxAdjustmentStep,
    SRB-Delay,
    Support-8PSK,
    SyncCase,
    SynchronisationConfiguration,
    SixtyfourQAM-DL-SupportIndicator,
    TDD-ChannelisationCode,
    TDD-ChannelisationCode768,
    TDD-DCHs-to-Modify,
    TDD-DL-Code-Information,
    TDD-DPCHOffset,
    TDD-PhysicalChannelOffset,
    TDD-TPC-DownlinkStepSize,
    TDD-ChannelisationCodeLCR,
    TDD-DL-Code-LCR-Information,
    TDD-DL-Code-Information768,
    TDD-UL-Code-Information,
    TDD-UL-Code-LCR-Information,
    TDD-UL-Code-Information768,
    TFCI-Coding,
    TFCI-Presence,
    TFCI-SignallingMode,
    TimeSlot,
    TimeSlotLCR,
    TimingAdvanceApplied,
    TMGI,
    TnlQos,
    ToAWE,
    ToAWS,
    TraceDepth,
    TraceRecordingSessionReference,
    TraceReference,
    TrafficClass,
    TransmitDiversityIndicator,
    TransportBearerID,
    TransportBearerRequestIndicator,
    TFCS,
    Transmission-Gap-Pattern-Sequence-Information,
    TransportFormatManagement,
    TransportFormatSet,
    TransportLayerAddress,
    TrCH-SrcStatisticsDescr,
    TSTD-Indicator,
    TSTD-Support-Indicator,
```

```
    UARFCN,
    UC-ID,
    UE-AggregateMaximumBitRate,
    UEIdentity,
    UEMeasurementType,
    UEMeasurementTimeslotInfoHCR,
    UEMeasurementTimeslotInfoLCR,
    UEMeasurementTimeslotInfo768,
    UEMeasurementReportCharacteristics,
    UEMeasurementParameterModAllow,
    UEMeasurementValueInformation,
    UE-State,
    UL-DPCCH-SlotFormat,
    UL-DPDCHIndicatorEDCH,
    UL-SIR,
    UL-FP-Mode,
    UL-PhysCH-SF-Variation,
    UL-ScramblingCode,
    UL-Timeslot-Information,
    UL-Timeslot-Information768,
    UL-TimeslotLCR-Information,
    UL-TimeSlot-ISCP-Info,
    UL-TimeSlot-ISCP-LCR-Info,
    URA-ID,
    URA-Information,
    USCH-ID,
    USCH-Information,
    UL-Synchronisation-Parameters-LCR,
    TDD-DL-DPCH-TimeSlotFormat-LCR,
    TDD-UL-DPCH-TimeSlotFormat-LCR,
    MAChs-ResetIndicator,
    UL-TimingAdvanceCtrl-LCR,
    TDD-TPC-UplinkStepSize-LCR,
    PrimaryCCPCH-RSCP-Delta,
    SynchronisationIndicator,
    Support-PLCCH,
    PLCCHinformation,
    RxTimingDeviationForTAext,
    E-DCH-Information,
    E-DCH-Information-Reconfig,
    E-DCH-Information-Response,
    E-DCH-768-Information,
    E-DCH-768-Information-Reconfig,
    E-DCH-768-Information-Response,
    E-DCH-LCR-Information,
    E-DCH-LCR-Information-Reconfig,
    E-DCH-LCR-Information-Response,
    ControlGAP,
    IdleIntervalInformation,
    NeedforIdleInterval,
    HS-SICH-ID-Extension,
    TSN-Length,
    UPPCHPositionLCR,
    Common-EDCH-MAC-d-Flow-Specific-InformationLCR,
```

```
    Enhanced-FACH-Information-ResponseLCR,
    HSDSCH-PreconfigurationSetup,
    HSDSCH-PreconfigurationInfo,
    NoOfTargetCellHS-SCCH-Order,
    EnhancedHSServingCC-Abort,
    GANSS-Time-ID,
    HS-DSCH-FDD-Secondary-Serving-Update-Information,
    HS-DSCH-Secondary-Serving-Remove,
    HS-DSCH-FDD-Secondary-Serving-Information-To-Modify-Unsynchronised,
    HS-DSCH-Secondary-Serving-Information-To-Modify,
    HS-DSCH-Secondary-Serving-Cell-Change-Information-Response,
    HS-DSCH-FDD-Secondary-Serving-Information-Response,
    HS-DSCH-FDD-Secondary-Serving-Information,
    MinimumReducedE-DPDCH-GainFactor,
    ContinuousPacketConnectivity-DRX-InformationLCR,
    ContinuousPacketConnectivity-DRX-Information-ResponseLCR,
    CPC-InformationLCR,
    E-DCH-Semi-PersistentScheduling-Information-LCR,
    HS-DSCH-Semi-PersistentScheduling-Information-LCR,
    HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR,
    E-DCH-Semi-PersistentScheduling-Information-ResponseLCR,
    RNTI-Allocation-Indicator,
    ActivationInformation,
    Additional-EDCH-Setup-Info,
    Additional-EDCH-Cell-Information-Response-List,
    Additional-EDCH-FDD-Update-Information,
    Additional-EDCH-Cell-Information-To-Add-List,
    Additional-EDCH-Cell-Information-Response-RLReconf-List,
    DCH-MeasurementOccasion-Information,
    DCH-MeasurementType-Indicator,
    Setup-Or-ConfigurationChange-Or-Removal-Of-EDCH-On-secondary-UL-Frequency,
    Additional-EDCH-Cell-Information-Response-RLAddList,
    Non-Serving-RL-Preconfig-Setup,
    Non-Serving-RL-Preconfig-Info



FROM RNSAP-IEs

    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-ContainerList{},
    ProtocolIE-ContainerPair{},
    ProtocolIE-ContainerPairList{},
    ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    RNSAP-PRIVATE-IES,
    RNSAP-PROTOCOL-EXTENSION,
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-IES-PAIR
FROM RNSAP-Containers

    maxCellsMeas,
```

```
    maxNoOfDSCHs,
    maxNoOfUSCHs,
    maxNrOfCCTrCHs,
    maxNrOfDCHs,
    maxNrOfTS,
    maxNrOfDPCHs,
    maxNrOfDPCHs768,
    maxNrOfDPCHsPerRL-1,
    maxNrOfDPCHs768PerRL-1,
    maxNrOfInterfaces,
    maxNrOfRLs,
    maxNrOfRLSets,
    maxNrOfRLSets-1,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfULTs,
    maxNrOfDLTs,
    maxResetContext,
    maxResetContextGroup,
    maxNoOfDSCHsLCR,
    maxNoOfUSCHsLCR,
    maxNrOfCCTrCHsLCR,
    maxNrOfTsLCR,
    maxNrOfDLTsLCR,
    maxNrOfULTsLCR,
    maxNrOfDPCHsLCR,
    maxNrOfDPCHsLCRPerRL-1,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfMeasNCell,
    maxNrOfMACdFlows,
    maxNrOfMACdPDUSize,
    maxNrOfMCCHMessages,
    maxNrOfMBMSL3,
    maxNrOfEDCHMACdFlows,
    maxNrOfHSSICHs,
    maxNrOfHSSICHs-1,
    maxNrOfActiveMBMSServices,
    maxNrOfMBMSServices,
    maxNrofSigSeqERGHICH-1,
    maxNrOfCells,
    maxNrOfHSDSCH-1,
    maxNrOfEDCH-1,

    id-Active-MBMS-Bearer-ServiceFDD,
    id-Active-MBMS-Bearer-ServiceFDD-PFL,
    id-Active-MBMS-Bearer-ServiceTDD,
    id-Active-MBMS-Bearer-ServiceTDD-PFL,
    id-Active-Pattern-Sequence-Information,
    id-AdjustmentRatio,
    id-AllowedQueuingTime,
    id-AlternativeFormatReportingIndicator,
    id-AntennaColocationIndicator,
    id-BindingID,
    id-C-ID,
    id-C-RNTI,
```

```
    id-CFN,
    id-CFNReportingIndicator,
    id-CN-CS-DomainIdentifier,
    id-CN-PS-DomainIdentifier,
    id-Cause,
    id-CauseLevel-RL-AdditionFailureFDD,
    id-CauseLevel-RL-AdditionFailureTDD,
    id-CauseLevel-RL-ReconfFailure,
    id-CauseLevel-RL-SetupFailureFDD,
    id-CauseLevel-RL-SetupFailureTDD,
    id-CCTrCH-InformationItem-RL-FailureInd,
    id-CCTrCH-InformationItem-RL-RestoreInd,
    id-CellCapabilityContainer-FDD,
    id-CellCapabilityContainerExtension-FDD,
    id-CellCapabilityContainer-TDD,
    id-CellCapabilityContainer-TDD-LCR,
    id-CellPortionID,
    id-ChipOffset,
    id-ClosedLoopMode1-SupportIndicator,
    id-CNOriginatedPage-PagingRqst,
    id-CommonMeasurementAccuracy,
    id-CommonMeasurementObjectType-CM-Rprt,
    id-CommonMeasurementObjectType-CM-Rqst,
    id-CommonMeasurementObjectType-CM-Rsp,
    id-CommonMeasurementType,
    id-CommonTransportChannelResourcesInitialisationNotRequired,
    id-Common-EDCH-MAC-d-Flow-Specific-InformationFDD,
    id-Common-EDCH-Support-Indicator,
    id-CongestionCause,
    id-Continuous-Packet-Connectivity-DTX-DRX-Information,
    id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information,
    id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response,
    id-CPC-Information,
    id-CoverageIndicator,
    id-CriticalityDiagnostics,
    id-CellPortionLCRID,
    id-D-RNTI,
    id-D-RNTI-ReleaseIndication,
    id-DCHs-to-Add-FDD,
    id-DCHs-to-Add-TDD,
    id-DCH-DeleteList-RL-ReconfPrepFDD,
    id-DCH-DeleteList-RL-ReconfPrepTDD,
    id-DCH-DeleteList-RL-ReconfRqstFDD,
    id-DCH-DeleteList-RL-ReconfRqstTDD,
    id-DCH-FDD-Information,
    id-DCH-TDD-Information,
    id-DCH-Indicator-For-E-DCH-HSDPA-Operation,
    id-FDD-DCHs-to-Modify,
    id-TDD-DCHs-to-Modify,
    id-DCH-InformationResponse,
    id-DCH-Rate-InformationItem-RL-CongestInd,
    id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD,
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    id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
    id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
    id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
    id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD,
    id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-FDD-DL-CodeInformation,
    id-DL-DPCH-Information-RL-ReconfPrepFDD,
    id-DL-DPCH-Information-RL-SetupRqstFDD,
    id-DL-DPCH-Information-RL-ReconfRqstFDD,
    id-DL-DPCH-InformationItem-PhyChReconfRqstTDD,
    id-DL-DPCH-InformationItem-RL-AdditionRspTDD,
    id-DL-DPCH-InformationItem-RL-SetupRspTDD,
    id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
    id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
    id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
    id-DL-DPCH-TimingAdjustment,
    id-DL-DPCH-Power-Information-RL-ReconfPrepFDD,
    id-DL-Physical-Channel-Information-RL-SetupRqstTDD,
    id-DL-PowerBalancing-Information,
    id-DL-PowerBalancing-ActivationIndicator,
    id-DL-PowerBalancing-UpdatedIndicator,
    id-DL-ReferencePowerInformation,
    id-DLReferencePower,
    id-DLReferencePowerList-DL-PC-Rqst,
    id-DL-ReferencePowerInformation-DL-PC-Rqst,
    id-DRXCycleLengthCoefficient,
    id-DedicatedMeasurementObjectType-DM-Fail,
    id-DedicatedMeasurementObjectType-DM-Fail-Ind,
    id-DedicatedMeasurementObjectType-DM-Rprt,
    id-DedicatedMeasurementObjectType-DM-Rqst,
    id-DedicatedMeasurementObjectType-DM-Rsp,
    id-DedicatedMeasurementType,
    id-DelayedActivation,
    id-DelayedActivationList-RL-ActivationCmdFDD,
    id-DelayedActivationList-RL-ActivationCmdTDD,
    id-DelayedActivationInformation-RL-ActivationCmdFDD,
    id-DelayedActivationInformation-RL-ActivationCmdTDD,
    id-DPC-Mode,
    id-DPC-Mode-Change-SupportIndicator,
    id-DSCHs-to-Add-TDD,
    id-DSCH-DeleteList-RL-ReconfPrepTDD,
    id-DSCH-InformationListIE-RL-AdditionRspTDD,
    id-DSCH-InformationListIEs-RL-SetupRspTDD,
    id-DSCH-TDD-Information,
    id-DSCH-ModifyList-RL-ReconfPrepTDD,
    id-DSCH-RNTI,
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    id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
    id-Dual-Band-Secondary-Serving-Cell-List,
    id-EDPCH-Information,
    id-EDCH-RL-Indication,
    id-EDCH-FDD-Information,
    id-Serving-EDCHRL-Id,
    id-EDCH-FDD-DL-ControlChannelInformation,
    id-EDCH-FDD-InformationResponse,
    id-E-DCH-FDD-Update-Information,
    id-EDCH-MACdFlows-To-Add,
    id-EDCH-FDD-Information-To-Modify,
    id-EDCH-MACdFlows-To-Delete,
    id-EDPCH-Information-RLReconfRequest-FDD,
    id-EDPCH-Information-RLAdditionReq-FDD,
    id-EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd,
    id-EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
    id-EDCH-MacdFlowSpecificInformationList-RL-CongestInd,
    id-EDCH-MacdFlowSpecificInformationItem-RL-CongestInd,
    id-Enhanced-FACH-Support-Indicator,
    id-Enhanced-FACH-Information-ResponseFDD,
    id-Enhanced-PCH-Capability,
    id-ExtendedPropagationDelay,
    id-Extended-SRNC-ID,
    id-Extended-RNC-ID,
    id-Serving-cell-change-CFN,
    id-E-DCH-Serving-cell-change-informationResponse,
    id-E-RNTI-For-FACH,
    id-H-RNTI-For-FACH,
    id-RNTI-Allocation-Indicator,
    id-Enhanced-PrimaryCPICH-EcNo,
    id-E-RNTI,
    id-F-DPCH-SlotFormat,
    id-F-DPCH-SlotFormatSupportRequest,
    id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
    id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
    id-Fast-Reconfiguration-Mode,
    id-Fast-Reconfiguration-Permission,
    id-FrameOffset,
    id-F-DPCH-Information-RL-ReconfPrepFDD,
    id-F-DPCH-Information-RL-SetupRqstFDD,
    id-GA-Cell,
    id-GA-CellAdditionalShapes,
    id-GSM-Cell-InfEx-Rqst,
    id-HCS-Prio,
    id-HSDSCH-Configured-Indicator,
    id-HSDSCH-FDD-Information,
    id-HSDSCH-FDD-Information-Response,
    id-HSDSCH-FDD-Update-Information,
    id-HSDSCH-TDD-Update-Information,
    id-HSDSCH-Information-to-Modify,
    id-HSDSCH-Information-to-Modify-Unsynchronised,
    id-HSDSCH-MACdFlows-to-Add,
    id-HSDSCH-MACdFlows-to-Delete,
    id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd,
```

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    id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
    id-HSDSCH-Physical-Layer-Category,
    id-HSDSCH-RNTI,
    id-HS-DSCH-serving-cell-change-information,
    id-HS-DSCH-serving-cell-change-informationResponse,
    id-HSDSCH-TDD-Information,
    id-HSDSCH-TDD-Information-Response,
    id-HSPDSCH-RL-ID,
    id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD,
    id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD,
    id-HSSICH-Info-DM-Rprt,
    id-HSSICH-Info-DM-Rqst,
    id-HSSICH-Info-DM,
    id-IMSI,
    id-InformationExchangeID,
    id-InformationExchangeObjectType-InfEx-Rprt,
    id-InformationExchangeObjectType-InfEx-Rqst,
    id-InformationExchangeObjectType-InfEx-Rsp,
    id-InformationReportCharacteristics,
    id-InformationType,
    id-Initial-DL-DPCH-TimingAdjustment,
    id-Initial-DL-DPCH-TimingAdjustment-Allowed,
    id-InnerLoopDLPCStatus,
    id-InterfacesToTraceItem,
    id-Inter-Frequency-Cell-List,
    id-L3-Information,
    id-AdjustmentPeriod,
    id-ListOfInterfacesToTrace,
    id-MaxAdjustmentStep,
    id-Max-UE-DTX-Cycle,
    id-MBMS-Bearer-Service-List,
    id-MBMS-Bearer-Service-List-InfEx-Rsp,
    id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rqst,
    id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rsp,
    id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rprt,
    id-MBMS-Cell-InfEx-Rqst,
    id-MBMS-Cell-InfEx-Rsp,
    id-MBMS-Cell-InfEx-Rprt,
    id-MBSFN-Cluster-Identity,
    id-MBSFN-Scheduling-Transmission-Time-Interval-Info-List,
    id-MCCH-Configuration-Info,
    id-MCCH-Message-List,
    id-MeasurementFilterCoefficient,
    id-MeasurementID,
    id-MeasurementRecoveryBehavior,
    id-MeasurementRecoveryReportingIndicator,
    id-MeasurementRecoverySupportIndicator,
    id-Multiple-PLMN-List,
    id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD,
    id-NACC-Related-Data,
    id-Neighbouring-E-UTRA-CellInformation,
    id-Old-URA-ID,
    id-PagingArea-PagingRqst,
    id-PartialReportingIndicator,
```

```
    id-PDSCH-RL-ID,
    id-Permanent-NAS-UE-Identity,
    id-Phase-Reference-Update-Indicator,
    id-FACH-FlowControlInformation,
    id-PLCCH-Information-PhyChReconfRqstTDD,
    id-PowerAdjustmentType,
    id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
    id-Primary-CPICH-Usage-For-Channel-Estimation,
    id-PropagationDelay,
    id-ProvidedInformation,
    id-RANAP-EnhancedRelocationInformationRequest,
    id-RANAP-EnhancedRelocationInformationResponse,
    id-RANAP-RelocationInformation,
    id-ResetIndicator,
    id-Released-CN-Domain,
    id-EDCH-RLSet-Id,
    id-RL-Information-PhyChReconfRqstFDD,
    id-RL-Information-PhyChReconfRqstTDD,
    id-RL-Information-RL-AdditionRqstFDD,
    id-RL-Information-RL-AdditionRqstTDD,
    id-RL-Information-RL-DeletionRqst,
    id-RL-Information-RL-FailureInd,
    id-RL-Information-RL-ReconfPrepFDD,
    id-RL-Information-RL-ReconfPrepTDD,
    id-RL-Information-RL-RestoreInd,
    id-RL-Information-RL-SetupRqstFDD,
    id-RL-Information-RL-SetupRqstTDD,
    id-RL-InformationItem-RL-CongestInd,
    id-RL-InformationItem-DM-Rprt,
    id-RL-InformationItem-DM-Rqst,
    id-RL-InformationItem-DM-Rsp,
    id-RL-InformationItem-RL-PreemptRequiredInd,
    id-RL-InformationItem-RL-SetupRqstFDD,
    id-RL-InformationList-RL-CongestInd,
    id-RL-InformationList-RL-AdditionRqstFDD,
    id-RL-InformationList-RL-DeletionRqst,
    id-RL-InformationList-RL-PreemptRequiredInd,
    id-RL-InformationList-RL-ReconfPrepFDD,
    id-RL-InformationResponse-RL-AdditionRspTDD,
    id-RL-InformationResponse-RL-ReconfReadyTDD,
    id-RL-InformationResponse-RL-ReconfRspTDD,
    id-RL-InformationResponse-RL-SetupRspTDD,
    id-RL-InformationResponseItem-RL-AdditionRspFDD,
    id-RL-InformationResponseItem-RL-ReconfReadyFDD,
    id-RL-InformationResponseItem-RL-ReconfRspFDD,
    id-RL-InformationResponseItem-RL-SetupRspFDD,
    id-RL-InformationResponseList-RL-AdditionRspFDD,
    id-RL-InformationResponseList-RL-ReconfReadyFDD,
    id-RL-InformationResponseList-RL-ReconfRspFDD,
    id-RL-InformationResponseList-RL-SetupRspFDD,
    id-RL-ParameterUpdateIndicationFDD-RL-Information-Item,
    id-RL-ParameterUpdateIndicationFDD-RL-InformationList,
    id-RL-ReconfigurationFailure-RL-ReconfFail,
    id-RL-ReconfigurationRequestFDD-RL-InformationList,
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    id-RL-ReconfigurationRequestFDD-RL-Information-IEs,
    id-RL-ReconfigurationRequestTDD-RL-Information,
    id-RL-ReconfigurationResponseTDD-RL-Information,
    id-RL-Specific-DCH-Info,
    id-RL-Specific-EDCH-Information,
    id-RL-Set-InformationItem-DM-Rprt,
    id-RL-Set-InformationItem-DM-Rqst,
    id-RL-Set-InformationItem-DM-Rsp,
    id-RL-Set-Information-RL-FailureInd,
    id-RL-Set-Information-RL-RestoreInd,
    id-RL-Set-Successful-InformationItem-DM-Fail,
    id-RL-Set-Unsuccessful-InformationItem-DM-Fail,
    id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind,
    id-RL-Successful-InformationItem-DM-Fail,
    id-RL-Unsuccessful-InformationItem-DM-Fail,
    id-RL-Unsuccessful-InformationItem-DM-Fail-Ind,
    id-ReportCharacteristics,
    id-Reporting-Object-RL-FailureInd,
    id-Reporing-Object-RL-RestoreInd,
    id-RNC-ID,
    id-RxTimingDeviationForTA,
    id-S-RNTI,
    id-SAI,
    id-Secondary-CPICH-Information,
    id-Secondary-CPICH-Information-Change,
    id-Secondary-Serving-Cell-List,
    id-Dual-Band-Secondary-Serving-Cell-List,
    id-SixtyfourQAM-DL-SupportIndicator,
    id-SFN,
    id-SFNReportingIndicator,
    id-SNA-Information,
    id-SRNC-ID,
    id-STTD-SupportIndicator,
    id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
    id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD,
    id-TDD-maxNrDLPhysicalchannels,
    id-TDD-Support-8PSK,
    id-TDD-Support-PLCCH,
    id-timeSlot-ISCP,
    id-TimeSlot-RL-SetupRspTDD,
    id-TnlQos,
    id-TraceDepth,
    id-TraceRecordingSessionReference,
    id-TraceReference,
    id-TransportBearerID,
    id-TransportBearerRequestIndicator,
    id-TransportLayerAddress,
    id-UC-ID,
    id-ContextInfoItem-Reset,
    id-ContextGroupInfoItem-Reset,
    id-Transmission-Gap-Pattern-Sequence-Information,
    id-UE-AggregateMaximumBitRate,
    id-UEIdentity,
    id-UEMeasurementType,
```

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    id-UEMeasurementTimeslotInfoHCR,
    id-UEMeasurementTimeslotInfoLCR,
    id-UEMeasurementReportCharacteristics,
    id-UEMeasurementParameterModAllow,
    id-UEMeasurementValueInformation,
    id-UE-State,
    id-UE-with-enhanced-HS-SCCH-support-indicator,
    id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD,
    id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD,
    id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
    id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
    id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
    id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
    id-UL-DPCH-Information-RL-ReconfPrepFDD,
    id-UL-DPCH-Information-RL-ReconfRqstFDD,
    id-UL-DPCH-Information-RL-SetupRqstFDD,
    id-UL-DPDCHIndicatorEDCH,
    id-UL-DPCH-InformationItem-PhyChReconfRqstTDD,
    id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
    id-UL-DPCH-InformationItem-RL-SetupRspTDD,
    id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
    id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
    id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
    id-UL-Physical-Channel-Information-RL-SetupRqstTDD,
    id-UL-SIRTarget,
    id-URA-ID,
    id-URA-Information,
    id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
    id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD,
    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD,
    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD,
    id-USCHs-to-Add,
    id-USCH-DeleteList-RL-ReconfPrepTDD,
    id-USCH-InformationListIE-RL-AdditionRspTDD,
    id-USCH-InformationListIEs-RL-SetupRspTDD,
    id-USCH-Information,
    id-USCH-ModifyList-RL-ReconfPrepTDD,
    id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
    id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD,
    id-RL-LCR-InformationResponse-RL-SetupRspTDD,
    id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
    id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
    id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
    id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
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id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-USCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD,
id-RL-LCR-InformationResponse-RL-AdditionRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD,
id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD,
id-TSTD-Support-Indicator-RL-SetupRqstTDD,
id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD,
id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD,
id-neighbouringTDDCellMeasurementInformationLCR,
id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD,
id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD,
id-TrafficClass,
id-UL-Synchronisation-Parameters-LCR,
id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
id-MAChs-ResetIndicator,
id-UL-TimingAdvanceCtrl-LCR,
id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD,
id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD,
id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD,
id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD,
id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD,
id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD,
id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
id-DL-CCTrCH-InformationList-RL-ReconfRspTDD,
id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD,
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD,
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD,
id-PrimaryCCPCH-RSCP-Delta,
id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp,
id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp,
id-SynchronisationIndicator,
id-secondary-LCR-CCPCH-Info-TDD,
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    id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp,
    id-CellCapabilityContainer-TDD768,
    id-neighbouringTDDCellMeasurementInformation768,
    id-RL-InformationResponse-RL-SetupRspTDD768,
    id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD768,
    id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD768,
    id-UL-DPCH-InformationItem-RL-SetupRspTDD768,
    id-DL-DPCH-InformationItem-RL-SetupRspTDD768,
    id-TDD768-minimumSpreadingFactor-UL,
    id-TDD768-minimumSpreadingFactor-DL,
    id-TDD768-maxNrDLPhysicalchannels,
    id-TDD768-maxNrDLPhysicalchannelsTS,
    id-RL-InformationResponse-RL-AdditionRspTDD768,
    id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD768,
    id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD768,
    id-UL-DPCH-InformationItem-RL-AdditionRspTDD768,
    id-DL-DPCH-InformationItem-RL-AdditionRspTDD768,
    id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768,
    id-UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768,
    id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768,
    id-DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768,
    id-secondary-CCPCH-Info-RL-ReconfReadyTDD768,
    id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD768,
    id-UL-Timeslot-InformationList-PhyChReconfRqstTDD768,
    id-DL-Timeslot-InformationList-PhyChReconfRqstTDD768,
    id-multiple-DedicatedMeasurementValueList-TDD768-DM-Rsp,
    id-UEMeasurementTimeslotInfo768,
    id-DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD,
    id-DPCH-ID768-DM-Rsp,
    id-DPCH-ID768-DM-Rqst,
    id-DPCH-ID768-DM-Rprt,
    id-RxTimingDeviationForTAext,
    id-RxTimingDeviationForTA768,
    id-E-DCH-Information,
    id-E-DCH-Information-Reconfig,
    id-E-DCH-Serving-RL-ID,
    id-E-DCH-Information-Response,
    id-E-DCH-768-Information,
    id-E-DCH-768-Information-Reconfig,
    id-E-DCH-768-Information-Response,
    id-E-DCH-LCR-Information,
    id-E-DCH-LCR-Information-Reconfig,
    id-E-DCH-LCR-Information-Response,
    id-PowerControlGAP,
    id-IdleIntervalInformation,
    id-NeedforIdleInterval,
    id-IdleIntervalConfigurationIndicator,
    id-UARFCNforNt,
    id-HS-SICH-ID-Extension,
    id-HSSICH-Info-DM-Rqst-Extension,
    id-UPPCHPositionLCR,
    id-Common-EDCH-MAC-d-Flow-Specific-InformationLCR,
    id-Enhanced-FACH-Information-ResponseLCR,
    id-HSDSCH-PreconfigurationSetup,
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    id-HSDSCH-PreconfigurationInfo,
    id-NoOfTargetCellHS-SCCH-Order,
    id-EnhancedHSServingCC-Abort,
    id-GANSS-Time-ID,
    id-Additional-HS-Cell-Information-RL-Setup,
    id-Additional-HS-Cell-Information-Response,
    id-Additional-HS-Cell-Information-RL-Addition,
    id-Additional-HS-Cell-Change-Information-Response,
    id-Additional-HS-Cell-Information-RL-Reconf-Prep,
    id-Additional-HS-Cell-Information-RL-Reconf-Req,
    id-Additional-HS-Cell-RL-Reconf-Response,
    id-Additional-HS-Cell-Information-RL-Param-Upd,
    id-MinimumReducedE-DPDCH-GainFactor,
    id-ContinuousPacketConnectivity-DRX-InformationLCR,
    id-ContinuousPacketConnectivity-DRX-Information-ResponseLCR,
    id-CPC-InformationLCR,
    id-E-DCH-Semi-PersistentScheduling-Information-LCR,
    id-HS-DSCH-Semi-PersistentScheduling-Information-LCR,
    id-HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR,
    id-E-DCH-Semi-PersistentScheduling-Information-ResponseLCR,
    id-ActivationInformation,
    id-Additional-EDCH-Cell-Information-RL-Setup-Req,
    id-Additional-EDCH-Cell-Information-Response,
    id-Additional-EDCH-Cell-Information-RL-Add-Req,
    id-Additional-EDCH-Cell-Information-Response-RLAdd,
    id-Additional-EDCH-Cell-Information-RL-Reconf-Prep,
    id-Additional-EDCH-Cell-Information-RL-Reconf-Req,
    id-Additional-EDCH-Cell-Information-RL-Param-Upd,
    id-Additional-EDCH-Cell-Information-ResponseRLReconf,
    id-DCH-MeasurementOccasion-Information,
    id-DCH-MeasurementType-Indicator,
    id-Non-Serving-RL-Preconfig-Info,
    id-Non-Serving-RL-Preconfig-Setup,
    id-Non-Serving-RL-Preconfig-Removal



FROM RNSAP-Constants;

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST FDD
--
-- **************************************************************

RadioLinkSetupRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupRequestFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkSetupRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SRNC-ID                 CRITICALITY reject  TYPE RNC-ID                     PRESENCE mandatory} |
```

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    { ID id-S-RNTI                  CRITICALITY reject  TYPE S-RNTI                    PRESENCE mandatory } |
    { ID id-D-RNTI                  CRITICALITY reject  TYPE D-RNTI                PRESENCE optional   } |
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional   } |
    { ID id-UL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject  TYPE UL-DPCH-Information-RL-SetupRqstFDD    PRESENCE mandatory   } |
    { ID id-DL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject  TYPE DL-DPCH-Information-RL-SetupRqstFDD    PRESENCE optional } |
    { ID id-DCH-FDD-Information     CRITICALITY reject  TYPE DCH-FDD-Information        PRESENCE mandatory } |
    { ID id-RL-Information-RL-SetupRqstFDD      CRITICALITY notify  TYPE RL-InformationList-RL-SetupRqstFDD     PRESENCE mandatory   }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information       CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information   PRESENCE
    optional } |
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject  TYPE Active-Pattern-Sequence-Information   PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode               UL-ScramblingCode,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPCHs                 MaxNrOfUL-DPCHs         OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 -- ,
    ul-PunctureLimit                PunctureLimit,
    ul-TFCS                         TFCS,
    ul-DPCCH-SlotFormat             UL-DPCCH-SlotFormat,
    ul-SIRTarget                    UL-SIR          OPTIONAL,
    diversityMode                   DiversityMode,
    not-Used-sSDT-CellIdLength      NULL            OPTIONAL,
    not-Used-s-FieldLength          NULL            OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode                CRITICALITY reject      EXTENSION DPC-Mode              PRESENCE optional }|
    { ID id-UL-DPDCHIndicatorEDCH   CRITICALITY reject      EXTENSION UL-DPDCHIndicatorEDCH PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    tFCS                            TFCS,
    dl-DPCH-SlotFormat              DL-DPCH-SlotFormat,
    nrOfDLchannelisationcodes       NrOfDLchannelisationcodes,
    tFCI-SignallingMode             TFCI-SignallingMode,
    tFCI-Presence                   TFCI-Presence           OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is equal to any of the values from 12 to 16 --,
    multiplexingPosition                MultiplexingPosition,
    powerOffsetInformation              PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-dl-TPC-DownlinkStepSize     FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease            LimitedPowerIncrease,
    innerLoopDLPCStatus             InnerLoopDLPCStatus,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
PowerOffsetInformation-RL-SetupRqstFDD ::= SEQUENCE {
        po1-ForTFCI-Bits                PowerOffset,
        po2-ForTPC-Bits                 PowerOffset,
        po3-ForPilotBits                PowerOffset,
        iE-Extensions                   ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
        ...
}

PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-SetupRqstFDD          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
SetupRqstFDD} }

RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-SetupRqstFDD  CRITICALITY notify  TYPE RL-InformationItem-RL-SetupRqstFDD     PRESENCE mandatory   }
}

RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    firstRLS-indicator              FirstRLS-Indicator,
    frameOffset                     FrameOffset,
    chipOffset                      ChipOffset,
    propagationDelay                PropagationDelay        OPTIONAL,
    diversityControlField           DiversityControlField       OPTIONAL
    -- This IE shall be present if the RL is not the first one in the RL-InformationList-RL-SetupRqstFDD --,
    dl-InitialTX-Power              DL-Power            OPTIONAL,
    primaryCPICH-EcNo               PrimaryCPICH-EcNo           OPTIONAL,
    not-Used-sSDT-CellID            NULL            OPTIONAL,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    -- This IE shall be present unless Diversity Mode IE in UL DPCH Information group is "none"
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Enhanced-PrimaryCPICH-EcNo          CRITICALITY ignore      EXTENSION Enhanced-PrimaryCPICH-EcNo      PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info                CRITICALITY ignore      EXTENSION RL-Specific-DCH-Info            PRESENCE optional }|
    { ID id-DelayedActivation                   CRITICALITY reject      EXTENSION DelayedActivation               PRESENCE optional }|
    { ID id-CellPortionID                       CRITICALITY ignore      EXTENSION CellPortionID                   PRESENCE optional }|
    { ID id-RL-Specific-EDCH-Information        CRITICALITY reject      EXTENSION RL-Specific-EDCH-Information    PRESENCE optional }|
    { ID id-EDCH-RL-Indication                  CRITICALITY reject      EXTENSION EDCH-RL-Indication              PRESENCE optional }|
    { ID id-ExtendedPropagationDelay            CRITICALITY ignore      EXTENSION ExtendedPropagationDelay        PRESENCE optional }|
    { ID id-SynchronisationIndicator            CRITICALITY reject      EXTENSION SynchronisationIndicator        PRESENCE optional }|
    { ID id-HSDSCH-PreconfigurationSetup        CRITICALITY ignore      EXTENSION HSDSCH-PreconfigurationSetup    PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Setup      CRITICALITY ignore      EXTENSION Non-Serving-RL-Preconfig-Setup  PRESENCE optional },
    ...
}

RadioLinkSetupRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
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```
    { ID id-Permanent-NAS-UE-Identity                  CRITICALITY ignore   EXTENSION Permanent-NAS-UE-Identity                PRESENCE optional
}|
    { ID id-DL-PowerBalancing-Information              CRITICALITY ignore   EXTENSION DL-PowerBalancing-Information            PRESENCE optional}|
    { ID id-HSDSCH-FDD-Information                     CRITICALITY reject   EXTENSION HSDSCH-FDD-Information                  PRESENCE optional
}|
    { ID id-HSPDSCH-RL-ID                              CRITICALITY reject   EXTENSION RL-ID                                  PRESENCE
conditional }|
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-MBMS-Bearer-Service-List                   CRITICALITY notify   EXTENSION MBMS-Bearer-Service-List             PRESENCE
optional }|
    { ID id-EDPCH-Information                          CRITICALITY reject   EXTENSION EDPCH-Information-FDD                PRESENCE
optional }|
    { ID id-EDCH-FDD-Information                       CRITICALITY reject   EXTENSION EDCH-FDD-Information                 PRESENCE
conditional }|
    -- This IE is present if E-DPCH Information IE is present.
    { ID id-Serving-EDCHRL-Id                          CRITICALITY reject   EXTENSION EDCH-Serving-RL                      PRESENCE
optional }|
    -- This IE is present if E-DCHInformation IE is present.
    { ID id-F-DPCH-Information-RL-SetupRqstFDD         CRITICALITY reject   EXTENSION F-DPCH-Information-RL-SetupRqstFDD      PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed   CRITICALITY ignore   EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed  PRESENCE optional
}|
    { ID id-DCH-Indicator-For-E-DCH-HSDPA-Operation    CRITICALITY reject   EXTENSION DCH-Indicator-For-E-DCH-HSDPA-Operation   PRESENCE optional
}|
    { ID id-Serving-cell-change-CFN                    CRITICALITY reject   EXTENSION CFN                                   PRESENCE optional
}|
    { ID id-Continuous-Packet-Connectivity-DTX-DRX-Information      CRITICALITY reject   EXTENSION Continuous-Packet-Connectivity-DTX-DRX-
Information                                                                                                                PRESENCE
optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information  CRITICALITY reject   EXTENSION Continuous-Packet-Connectivity-HS-SCCH-Less-
Information                                                                                                                PRESENCE optional
}|
    { ID id-Extended-SRNC-ID                           CRITICALITY reject   EXTENSION Extended-RNC-ID                      PRESENCE optional
}|
    { ID id-Additional-HS-Cell-Information-RL-Setup    CRITICALITY reject   EXTENSION Additional-HS-Cell-Information-RL-Setup-List
                                                                                                                           PRESENCE
optional }|
    { ID id-UE-AggregateMaximumBitRate  CRITICALITY ignore  EXTENSION UE-AggregateMaximumBitRate                           PRESENCE optional
}|
    { ID id-Additional-EDCH-Cell-Information-RL-Setup-Req           CRITICALITY reject   EXTENSION Additional-EDCH-Setup-Info       PRESENCE
optional },
    ...
}

Additional-HS-Cell-Information-RL-Setup-List    ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Additional-HS-Cell-Information-RL-Setup-ItemIEs



Additional-HS-Cell-Information-RL-Setup-ItemIEs ::=SEQUENCE{
    hSPDSCH-RL-ID                                  RL-ID,
    c-ID                                           C-ID,
    hS-DSCH-FDD-Secondary-Serving-Information      HS-DSCH-FDD-Secondary-Serving-Information,
    iE-Extensions                  ProtocolExtensionContainer { { Additional-HS-Cell-Information-RL-Setup-ItemIEs-ExtIEs} } OPTIONAL,
    ...
```

```
}

Additional-HS-Cell-Information-RL-Setup-ItemIEs-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    powerOffsetInformation          PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD,
    fdd-dl-TPC-DownlinkStepSize     FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease            LimitedPowerIncrease,
    innerLoopDLPCStatus             InnerLoopDLPCStatus,
    iE-Extensions                   ProtocolExtensionContainer { { F-DPCH-Information-RL-SetupRqstFDD-ExtIEs} }               OPTIONAL,
    ...
}

F-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-F-DPCH-SlotFormatSupportRequest     CRITICALITY reject          EXTENSION F-DPCH-SlotFormatSupportRequest    PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat               CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat     PRESENCE optional},
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD ::= SEQUENCE {
    po2-ForTPC-Bits                 PowerOffset,
    --This IE shall be ignored by DRNS
    iE-Extensions                   ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST TDD
--
-- **************************************************************

RadioLinkSetupRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkSetupRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SRNC-ID                                         CRITICALITY reject  TYPE RNC-ID                    PRESENCE mandatory } |
    { ID id-S-RNTI                                          CRITICALITY reject  TYPE S-RNTI                    PRESENCE mandatory } |
    { ID id-D-RNTI                                          CRITICALITY reject  TYPE D-RNTI                    PRESENCE optional } |
    { ID id-UL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject  TYPE UL-Physical-Channel-Information-RL-SetupRqstTDD               PRESENCE mand
    { ID id-DL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject  TYPE DL-Physical-Channel-Information-RL-SetupRqstTDD               PRESENCE mand
    { ID id-AllowedQueuingTime                              CRITICALITY reject  TYPE AllowedQueuingTime        PRESENCE optional } |
    { ID id-UL-CCTrCH-InformationList-RL-SetupRqstTDD       CRITICALITY notify  TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD   PRESENCE optional
} |
```

```
    { ID id-DL-CCTrCH-InformationList-RL-SetupRqstTDD      CRITICALITY notify  TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD   PRESENCE optional
} |
    { ID id-DCH-TDD-Information                            CRITICALITY reject  TYPE DCH-TDD-Information       PRESENCE optional } |
    { ID id-DSCH-TDD-Information                           CRITICALITY reject  TYPE DSCH-TDD-Information      PRESENCE optional } |
    { ID id-USCH-Information                               CRITICALITY reject  TYPE USCH-Information          PRESENCE optional } |
    { ID id-RL-Information-RL-SetupRqstTDD                 CRITICALITY reject  TYPE RL-Information-RL-SetupRqstTDD             PRESENCE mandatory
},
    ...
}

UL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
    maxNrTimeslots-UL               MaxNrTimeslots,
    minimumSpreadingFactor-UL       MinimumSpreadingFactor,
    maxNrULPhysicalchannels         MaxNrULPhysicalchannels,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-Support-8PSK        CRITICALITY ignore      EXTENSION Support-8PSK      PRESENCE optional  }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-TDD768-minimumSpreadingFactor-UL        CRITICALITY ignore          EXTENSION MinimumSpreadingFactor768    PRESENCE optional },
    ...
}

DL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
    maxNrTimeslots-DL               MaxNrTimeslots,
    minimumSpreadingFactor-DL       MinimumSpreadingFactor,
    maxNrDLPhysicalchannels         MaxNrDLPhysicalchannels,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-maxNrDLPhysicalchannels             CRITICALITY ignore          EXTENSION MaxNrDLPhysicalchannelsTS      PRESENCE optional }|
    { ID id-TDD-Support-8PSK                        CRITICALITY ignore          EXTENSION Support-8PSK                   PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-TDD-Support-PLCCH                       CRITICALITY ignore          EXTENSION Support-PLCCH                  PRESENCE optional }|
    { ID id-TDD768-minimumSpreadingFactor-DL        CRITICALITY ignore          EXTENSION MinimumSpreadingFactor768      PRESENCE optional }|
    { ID id-TDD768-maxNrDLPhysicalchannels          CRITICALITY ignore          EXTENSION MaxNrDLPhysicalchannels768     PRESENCE optional }|
    { ID id-TDD768-maxNrDLPhysicalchannelsTS        CRITICALITY ignore          EXTENSION MaxNrDLPhysicalchannelsTS768   PRESENCE optional },
    ...
}

UL-CCTrCH-InformationList-RL-SetupRqstTDD           ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }

UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationItem-RL-SetupRqstTDD  PRESENCE mandatory   }
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    ul-TFCS                         TFCS,
```

```
    tFCI-Coding                     TFCI-Coding,
    ul-PunctureLimit                PunctureLimit,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD      CRITICALITY reject      EXTENSION   TDD-TPC-UplinkStepSize-LCR     PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD
    ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD           ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }

DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-SetupRqstTDD  PRESENCE mandatory    }
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    dl-TFCS                         TFCS,
    tFCI-Coding                     TFCI-Coding,
    dl-PunctureLimit                PunctureLimit,
    tdd-TPC-DownlinkStepSize        TDD-TPC-DownlinkStepSize,
    cCTrCH-TPCList                  CCTrCH-TPCList-RL-SetupRqstTDD  OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD

CCTrCH-TPCItem-RL-SetupRqstTDD   ::= SEQUENCE {
    cCTrCH-ID                           CCTrCH-ID,
    iE-Extensions                       ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    frameOffset                     FrameOffset,
    specialBurstScheduling          SpecialBurstScheduling,
    primaryCCPCH-RSCP               PrimaryCCPCH-RSCP       OPTIONAL,
    dL-TimeSlot-ISCP                DL-TimeSlot-ISCP-Info   OPTIONAL,
    --for 3.84Mcps TDD and 7.68Mcps TDD only
```

```
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD    CRITICALITY reject      EXTENSION    DL-TimeSlot-ISCP-LCR-Information PRESENCE
optional    }|
    { ID id-TSTD-Support-Indicator-RL-SetupRqstTDD              CRITICALITY ignore      EXTENSION    TSTD-Support-Indicator           PRESENCE
optional    }|
    --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info    CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info    PRESENCE   optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR           CRITICALITY reject      EXTENSION   UL-Synchronisation-Parameters-LCR     PRESENCE
    optional    }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-PrimaryCCPCH-RSCP-Delta     CRITICALITY ignore      EXTENSION   PrimaryCCPCH-RSCP-Delta     PRESENCE    optional }|
    { ID id-IdleIntervalConfigurationIndicator                          CRITICALITY ignore  EXTENSION   NULL           PRESENCE optional }|
    { ID id-CellPortionLCRID    CRITICALITY ignore  EXTENSION CellPortionLCRID  PRESENCE optional },
    ...
}

RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity                           CRITICALITY ignore   EXTENSION Permanent-NAS-UE-Identity      PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information                              CRITICALITY reject   EXTENSION HSDSCH-TDD-Information         PRESENCE optional }|
    { ID id-HSPDSCH-RL-ID                                       CRITICALITY reject   EXTENSION RL-ID                          PRESENCE conditional
    }|
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-PDSCH-RL-ID                                         CRITICALITY ignore   EXTENSION RL-ID                          PRESENCE optional }|
    { ID id-MBMS-Bearer-Service-List                            CRITICALITY notify   EXTENSION MBMS-Bearer-Service-List       PRESENCE optional}|
    { ID id-E-DCH-Information                                   CRITICALITY reject   EXTENSION E-DCH-Information              PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID                                 CRITICALITY reject   EXTENSION RL-ID                          PRESENCE optional }|
    { ID id-E-DCH-768-Information                               CRITICALITY reject   EXTENSION E-DCH-768-Information          PRESENCE optional }|
    { ID id-E-DCH-LCR-Information                               CRITICALITY reject   EXTENSION E-DCH-LCR-Information          PRESENCE optional }|
    { ID id-Extended-SRNC-ID                                    CRITICALITY reject   EXTENSION Extended-RNC-ID                PRESENCE optional }|
    { ID id-ContinuousPacketConnectivity-DRX-InformationLCR     CRITICALITY reject   EXTENSION ContinuousPacketConnectivity-DRX-InformationLCR
                                    PRESENCE optional }|
    { ID id-HS-DSCH-Semi-PersistentScheduling-Information-LCR   CRITICALITY reject   EXTENSION HS-DSCH-Semi-PersistentScheduling-Information-LCR
    PRESENCE optional }|
    { ID id-E-DCH-Semi-PersistentScheduling-Information-LCR CRITICALITY reject  EXTENSION E-DCH-Semi-PersistentScheduling-Information-LCR
    PRESENCE optional }|
    { ID id-RNTI-Allocation-Indicator                           CRITICALITY ignore  EXTENSION  RNTI-Allocation-Indicator       PRESENCE optional }|
    { ID id-DCH-MeasurementType-Indicator                       CRITICALITY reject   EXTENSION DCH-MeasurementType-Indicator  PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE FDD
--
-- **************************************************************

RadioLinkSetupResponseFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupResponseFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}                  OPTIONAL,
    ...
```

```
}

RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                                  CRITICALITY ignore   TYPE D-RNTI                                  PRESENCE optional   }
|
    { ID id-CN-PS-DomainIdentifier                  CRITICALITY ignore   TYPE CN-PS-DomainIdentifier                  PRESENCE optional   }
|
    { ID id-CN-CS-DomainIdentifier                  CRITICALITY ignore   TYPE CN-CS-DomainIdentifier                  PRESENCE optional   }
|
    { ID id-RL-InformationResponseList-RL-SetupRspFDD   CRITICALITY ignore   TYPE RL-InformationResponseList-RL-SetupRspFDD  PRESENCE mandatory  }
|
    { ID id-UL-SIRTarget                            CRITICALITY ignore   TYPE UL-SIR                                  PRESENCE optional   }
|
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore   TYPE CriticalityDiagnostics                  PRESENCE optional   },
    ...
}

RL-InformationResponseList-RL-SetupRspFDD       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-SetupRspFDD} }

RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-SetupRspFDD   CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-SetupRspFDD  PRESENCE mandatory   }
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    rL-Set-ID                       RL-Set-ID,
    uRA-Information                 URA-Information     OPTIONAL,
    sAI                             SAI,
    gA-Cell                         GA-Cell     OPTIONAL,
    gA-AccessPointPosition          GA-AccessPointPosition      OPTIONAL,
    received-total-wide-band-power  Received-total-wide-band-power,
    not-Used-secondary-CCPCH-Info           NULL        OPTIONAL,
    dl-CodeInformation              FDD-DL-CodeInformation,
    diversityIndication             DiversityIndication-RL-SetupRspFDD,
    sSDT-SupportIndicator           SSDT-SupportIndicator,
    maxUL-SIR                       UL-SIR,
    minUL-SIR                       UL-SIR,
    closedlooptimingadjustmentmode  Closedlooptimingadjustmentmode          OPTIONAL,
    maximumAllowedULTxPower         MaximumAllowedULTxPower,
    maximumDLTxPower                DL-Power,
    minimumDLTxPower                DL-Power,
    primaryScramblingCode           PrimaryScramblingCode                   OPTIONAL,
    uL-UARFCN                       UARFCN                                  OPTIONAL,
    dL-UARFCN                       UARFCN                                  OPTIONAL,
    primaryCPICH-Power              PrimaryCPICH-Power,
    not-Used-dSCHInformationResponse    NULL                                OPTIONAL,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation    OPTIONAL,
    pC-Preamble                     PC-Preamble,
    sRB-Delay                       SRB-Delay,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                     CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                     PRESENCE optional
}|
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
    { ID id-HCS-Prio                                    CRITICALITY ignore  EXTENSION HCS-Prio                                  PRESENCE optional
}|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation  CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation  PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information                 CRITICALITY ignore  EXTENSION Secondary-CPICH-Information                PRESENCE
optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL           CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL      PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                               CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE
optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation       CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation      PRESENCE
optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional
}|
    { ID id-F-DPCH-SlotFormat                           CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                         PRESENCE optional
}|
    { ID id-FrameOffset                                 CRITICALITY ignore  EXTENSION FrameOffset                               PRESENCE optional
}|
    { ID id-ChipOffset                                  CRITICALITY ignore  EXTENSION ChipOffset                                PRESENCE optional
}|
    { ID id-Neighbouring-E-UTRA-CellInformation         CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation        PRESENCE optional
}|
    { ID id-HSDSCH-PreconfigurationInfo                 CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationInfo                PRESENCE optional
}|
    { ID id-Non-Serving-RL-Preconfig-Info               CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Info              PRESENCE optional
},
    ...
}

DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining                       Combining-RL-SetupRspFDD,
    nonCombiningOrFirstRL           NonCombiningOrFirstRL-RL-SetupRspFDD
}

Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse           PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse      PRESENCE optional },
    ...
}

NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponse     DCH-InformationResponse,
```

```
    iE-Extensions               ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-EDCH-FDD-InformationResponse     CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional},
    ...
}

RadioLinkSetupResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                         CRITICALITY ignore      EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response      PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response        CRITICALITY ignore    EXTENSION Continuous-Packet-Connectivity-
HS-SCCH-Less-Information-Response       PRESENCE optional }|
    { ID id-SixtyfourQAM-DL-SupportIndicator    CRITICALITY ignore      EXTENSION SixtyfourQAM-DL-SupportIndicator     PRESENCE optional }|
    { ID id-Additional-HS-Cell-Information-Response CRITICALITY ignore      EXTENSION Additional-HS-Cell-Information-Response-List   PRESENCE
optional }|
    { ID id-Additional-EDCH-Cell-Information-Response       CRITICALITY ignore  EXTENSION   Additional-EDCH-Cell-Information-Response-List
    PRESENCE optional },
    ...
}

Additional-HS-Cell-Information-Response-List    ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Additional-HS-Cell-Information-Response-ItemIEs



Additional-HS-Cell-Information-Response-ItemIEs ::=SEQUENCE{
    hSPDSCH-RL-ID                                   RL-ID,
    hSDSCH-RNTI                                     HSDSCH-RNTI,
    hS-DSCH-FDD-Secondary-Serving-Information-Response  HS-DSCH-FDD-Secondary-Serving-Information-Response,
    sixtyfourQAM-DL-SupportIndicator                SixtyfourQAM-DL-SupportIndicator    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-HS-Cell-Information-Response-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-HS-Cell-Information-Response-ItemIEs-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE TDD
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-- **************************************************************

RadioLinkSetupResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkSetupResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                                  CRITICALITY ignore  TYPE D-RNTI                                 PRESENCE optional } |
    { ID id-CN-PS-DomainIdentifier                  CRITICALITY ignore  TYPE CN-PS-DomainIdentifier                 PRESENCE optional } |
```

```
    { ID id-CN-CS-DomainIdentifier                  CRITICALITY ignore  TYPE CN-CS-DomainIdentifier                PRESENCE optional } |
    { ID id-RL-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  TYPE RL-InformationResponse-RL-SetupRspTDD  PRESENCE optional } |
    --Mandatory for 3.84Mcps TDD only
    { ID id-UL-SIRTarget                            CRITICALITY ignore  TYPE UL-SIR                               PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore  TYPE CriticalityDiagnostics             PRESENCE optional },
    ...
}

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    uRA-Information             URA-Information     OPTIONAL,
    sAI                         SAI,
    gA-Cell                     GA-Cell     OPTIONAL,
    gA-AccessPointPosition      GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info       UL-TimeSlot-ISCP-Info,
    maxUL-SIR                   UL-SIR,
    minUL-SIR                   UL-SIR,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    maximumDLTxPower            DL-Power,
    minimumDLTxPower            DL-Power,
    uARFCNforNt                 UARFCN              OPTIONAL,
    cellParameterID             CellParameterID     OPTIONAL,
    syncCase                    SyncCase            OPTIONAL,
    sCH-TimeSlot                SCH-TimeSlot        OPTIONAL,
    -- This IE shall be present if Sync Case IE is equal to "Case2". --
    sCTD-Indicator              SCTD-Indicator  OPTIONAL,
    pCCPCH-Power                PCCPCH-Power,
    timingAdvanceApplied        TimingAdvanceApplied,
    alphaValue                  AlphaValue,
    ul-PhysCH-SF-Variation      UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD            Secondary-CCPCH-Info-TDD    OPTIONAL,
    ul-CCTrCHInformation                UL-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dl-CCTrCHInformation                DL-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dCH-InformationResponse             DCH-InformationResponseList-RL-SetupRspTDD  OPTIONAL,
    dsch-InformationResponse            DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    usch-InformationResponse            USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    neighbouring-UMTS-CellInformation           Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation            Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                 CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes              PRESENCE optional }|
    { ID id-HCS-Prio                                CRITICALITY ignore  EXTENSION   HCS-Prio                            PRESENCE optional }|
    { ID id-TimeSlot-RL-SetupRspTDD                 CRITICALITY ignore  EXTENSION   TimeSlot                            PRESENCE conditional }|
    -- This IE shall be present if Sync Case IE is Case1. --
    { ID id-Neighbouring-E-UTRA-CellInformation     CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation    PRESENCE optional },
    ...
}

UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
```

```
UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD     PRESENCE mandatory }
}

UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD

UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD      CRITICALITY ignore      EXTENSION UL-SIR     PRESENCE optional},
    ...
}

UL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD} }

UL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-SetupRspTDD  PRESENCE mandatory}
}


UL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-Timeslot-Information         UL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD}}

DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-SetupRspTDD  PRESENCE mandatory }
}

DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD

DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    dl-DPCH-Information             DL-DPCH-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD  CRITICALITY ignore  EXTENSION  DL-Power PRESENCE optional }| -- this is a DCH type CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD  CRITICALITY ignore  EXTENSION  DL-Power PRESENCE optional }, -- this is a DCH type CCTrCH power
    ...
}

DL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }

DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-SetupRspTDD  PRESENCE mandatory}
}

DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information         DL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}

DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse  PRESENCE mandatory }
}

DSCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationList-RL-SetupRspTDD}}

DSCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIEs-RL-SetupRspTDD      CRITICALITY ignore  TYPE DSCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
}

DSCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspTDD

DSCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions           ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationList-RL-SetupRspTDD}}
```

```
USCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIEs-RL-SetupRspTDD      CRITICALITY ignore  TYPE USCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
}

USCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-SetupRspTDD

USCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID                     USCH-ID,
    bindingID                   BindingID   OPTIONAL,
    transportLayerAddress       TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions               ProtocolExtensionContainer { {USCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  EXTENSION   RL-LCR-InformationResponse-RL-SetupRspTDD    PRESENCE
optional}|
    --Mandatory for 1.28Mcps TDD only
    { ID id-HSDSCH-RNTI                                 CRITICALITY ignore  EXTENSION HSDSCH-RNTI                                 PRESENCE optional
}|
    { ID id-HSDSCH-TDD-Information-Response             CRITICALITY ignore  EXTENSION HSDSCH-TDD-Information-Response             PRESENCE optional
}|
    { ID id-DSCH-RNTI                                   CRITICALITY ignore  EXTENSION DSCH-RNTI                                   PRESENCE optional
}|
    { ID id-Active-MBMS-Bearer-ServiceTDD-PFL           CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListTDD-PFL      PRESENCE optional
}|
    { ID id-RL-InformationResponse-RL-SetupRspTDD768    CRITICALITY ignore  EXTENSION RL-InformationResponse-RL-SetupRspTDD768    PRESENCE
optional }|
    { ID id-E-DCH-Information-Response                   CRITICALITY ignore  EXTENSION E-DCH-Information-Response                 PRESENCE optional
    }|
    { ID id-E-DCH-768-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-768-Information-Response             PRESENCE optional
    }|
    { ID id-E-DCH-LCR-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-LCR-Information-Response             PRESENCE optional
    }|
    { ID id-ContinuousPacketConnectivity-DRX-Information-ResponseLCR    CRITICALITY ignore  EXTENSION ContinuousPacketConnectivity-DRX-Information-
ResponseLCR         PRESENCE optional   }|
    { ID id-HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR   CRITICALITY ignore  EXTENSION HS-DSCH-Semi-PersistentScheduling-
Information-ResponseLCR         PRESENCE optional   }|
    { ID id-E-DCH-Semi-PersistentScheduling-Information-ResponseLCR     CRITICALITY ignore  EXTENSION E-DCH-Semi-PersistentScheduling-Information-
ResponseLCR         PRESENCE optional}|
    { ID id-E-RNTI-For-FACH                             CRITICALITY ignore  EXTENSION E-RNTI                                      PRESENCE
optional }|
    { ID id-H-RNTI-For-FACH                             CRITICALITY ignore  EXTENSION HSDSCH-RNTI                                 PRESENCE
optional }|
    { ID id-DCH-MeasurementOccasion-Information         CRITICALITY reject  EXTENSION DCH-MeasurementOccasion-Information         PRESENCE
optional},
    ...
}
```

```
RL-LCR-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    uRA-Information             URA-Information,
    sAI                         SAI,
    gA-Cell                     GA-Cell     OPTIONAL,
    gA-AccessPointPosition      GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-LCR-Info   UL-TimeSlot-ISCP-LCR-Info,
    maxUL-SIR                   UL-SIR,
    minUL-SIR                   UL-SIR,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    maximumDLTxPower            DL-Power,
    minimumDLTxPower            DL-Power,
    uARFCNforNt                 UARFCN                  OPTIONAL,
    cellParameterID             CellParameterID         OPTIONAL,
    sCTD-Indicator      SCTD-Indicator  OPTIONAL,
    pCCPCH-Power                PCCPCH-Power,
    alphaValue                  AlphaValue,
    ul-PhysCH-SF-Variation      UL-PhysCH-SF-Variation,
    synchronisationConfiguration            SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD            Secondary-LCR-CCPCH-Info-TDD                    OPTIONAL,
    ul-LCR-CCTrCHInformation                UL-LCR-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dl-LCR-CCTrCHInformation                DL-LCR-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dCH-InformationResponse                 DCH-InformationResponseList-RL-SetupRspTDD      OPTIONAL,
    dsch-LCR-InformationResponse            DSCH-LCR-InformationResponse-RL-SetupRspTDD     OPTIONAL,
    usch-LCR-InformationResponse            USCH-LCR-InformationResponse-RL-SetupRspTDD     OPTIONAL,
    neighbouring-UMTS-CellInformation       Neighbouring-UMTS-CellInformation               OPTIONAL,
    neighbouring-GSM-CellInformation        Neighbouring-GSM-CellInformation                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs} }   OPTIONAL,
    ...
}

RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                 CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes           PRESENCE optional }|
    { ID id-HCS-Prio                                CRITICALITY ignore  EXTENSION   HCS-Prio                         PRESENCE optional }|
    { ID id-UL-TimingAdvanceCtrl-LCR                CRITICALITY ignore  EXTENSION   UL-TimingAdvanceCtrl-LCR         PRESENCE optional }|
    --Mandatory for 1.28Mcps TDD only
    { ID id-PowerControlGAP                         CRITICALITY ignore  EXTENSION   ControlGAP                      PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-SixtyfourQAM-DL-SupportIndicator        CRITICALITY ignore  EXTENSION   SixtyfourQAM-DL-SupportIndicator  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Neighbouring-E-UTRA-CellInformation     CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation PRESENCE optional }|
    { ID id-IdleIntervalInformation                 CRITICALITY ignore  EXTENSION   IdleIntervalInformation          PRESENCE optional },
    ...
}

UL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}

UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD   PRESENCE
mandatory }
}

UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD
```

```
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-LCR-Information     UL-DPCH-LCR-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD      CRITICALITY ignore      EXTENSION UL-SIR    PRESENCE optional},
    ...
}

UL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }

UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE UL-DPCH-LCR-InformationItem-RL-SetupRspTDD  PRESENCE mandatory
    }
}

UL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-TimeslotLCR-Information      UL-TimeslotLCR-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
DL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}

DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD  PRESENCE
mandatory }
}

DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD

DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-LCR-Information     DL-DPCH-LCR-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }

DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE DL-DPCH-LCR-InformationItem-RL-SetupRspTDD  PRESENCE mandatory
    }
}

DL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-LCR-Information     DL-TimeslotLCR-Information,
    tSTD-Indicator                  TSTD-Indicator,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-SetupRspTDD}}

DSCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD      CRITICALITY ignore  TYPE DSCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
}
}

DSCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-SetupRspTDD

DSCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dsch-ID                             DSCH-ID,
    dSCH-FlowControlInformation         DSCH-FlowControlInformation,
    bindingID                           BindingID   OPTIONAL,
    transportLayerAddress               TransportLayerAddress   OPTIONAL,
    transportFormatManagement           TransportFormatManagement,
    iE-Extensions                       ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-SetupRspTDD}}

USCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-SetupRspTDD      CRITICALITY ignore  TYPE USCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
}
}

USCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-SetupRspTDD

USCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID                     USCH-ID,
    bindingID                   BindingID   OPTIONAL,
    transportLayerAddress       TransportLayerAddress   OPTIONAL,
```

```
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions               ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationResponse-RL-SetupRspTDD768 ::= SEQUENCE {
    rL-ID                       RL-ID,
    uRA-Information             URA-Information     OPTIONAL,
    sAI                         SAI,
    gA-Cell                     GA-Cell     OPTIONAL,
    gA-AccessPointPosition      GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info       UL-TimeSlot-ISCP-Info,
    maxUL-SIR                   UL-SIR,
    minUL-SIR                   UL-SIR,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    maximumDLTxPower            DL-Power,
    minimumDLTxPower            DL-Power,
    uARFCNforNt                 UARFCN              OPTIONAL,
    cellParameterID             CellParameterID     OPTIONAL,
    syncCase                    SyncCase            OPTIONAL,
    sCH-TimeSlot                SCH-TimeSlot        OPTIONAL,
    -- This IE shall be present if Sync Case IE is equal to "Case2". --
    sCTD-Indicator              SCTD-Indicator  OPTIONAL,
    pCCPCH-Power                PCCPCH-Power,
    timingAdvanceApplied        TimingAdvanceApplied,
    alphaValue                  AlphaValue,
    ul-PhysCH-SF-Variation      UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD768         Secondary-CCPCH-Info-TDD768     OPTIONAL,
    ul-CCTrCHInformation768             UL-CCTrCHInformationList-RL-SetupRspTDD768      OPTIONAL,
    dl-CCTrCHInformation768             DL-CCTrCHInformationList-RL-SetupRspTDD768      OPTIONAL,
    dCH-InformationResponse             DCH-InformationResponseList-RL-SetupRspTDD  OPTIONAL,
    dsch-InformationResponse            DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    usch-InformationResponse            USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    neighbouring-UMTS-CellInformation           Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation            Neighbouring-GSM-CellInformation OPTIONAL,
    gA-CellAdditionalShapes                     GA-CellAdditionalShapes     OPTIONAL,
    hCS-Prio                            HCS-Prio        OPTIONAL,
    timeSlot-RL-SetupRspTDD             TimeSlot    OPTIONAL,
    -- This IE shall be present if Sync Case IE is Case1. --

    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Neighbouring-E-UTRA-CellInformation         CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation         PRESENCE optional
},
    ...
}
```

```
UL-CCTrCHInformationList-RL-SetupRspTDD768 ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD768}}

UL-CCTrCHInformationListIEs-RL-SetupRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD768   CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD768    PRESENCE
mandatory }
}

UL-CCTrCHInformationListIE-RL-SetupRspTDD768 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD768

UL-CCTrCHInformationItem-RL-SetupRspTDD768 ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-Information768              UL-DPCH-InformationList-RL-SetupRspTDD768       OPTIONAL,
    uL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD768      UL-SIR      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-SetupRspTDD768 ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD768} }

UL-DPCH-InformationListIEs-RL-SetupRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD768       CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-SetupRspTDD768  PRESENCE mandatory
    }
}

UL-DPCH-InformationItem-RL-SetupRspTDD768 ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-Timeslot-Information768          UL-Timeslot-Information768,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-SetupRspTDD768 ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD768}}

DL-CCTrCHInformationListIEs-RL-SetupRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD768   CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-SetupRspTDD768  PRESENCE
mandatory }
}

DL-CCTrCHInformationListIE-RL-SetupRspTDD768 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD768

DL-CCTrCHInformationItem-RL-SetupRspTDD768 ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-Information768              DL-DPCH-InformationList-RL-SetupRspTDD768       OPTIONAL,
```

```
    cCTrCH-Maximum-DL-Power             DL-Power        OPTIONAL, -- this is a DCH type CCTrCH power
    cCTrCH-Minimum-DL-Power             DL-Power        OPTIONAL, -- this is a DCH type CCTrCH power
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-SetupRspTDD768 ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD768} }

DL-DPCH-InformationListIEs-RL-SetupRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD768       CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-SetupRspTDD768  PRESENCE mandatory
    }
}

DL-DPCH-InformationItem-RL-SetupRspTDD768 ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information768      DL-Timeslot-Information768,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE FDD
--
-- **************************************************************

RadioLinkSetupFailureFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupFailureFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkSetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                          CRITICALITY ignore  TYPE D-RNTI                          PRESENCE optional } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier          PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier          PRESENCE optional } |
    { ID id-CauseLevel-RL-SetupFailureFDD   CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureFDD   PRESENCE mandatory }|
    { ID id-UL-SIRTarget                    CRITICALITY ignore  TYPE UL-SIR                          PRESENCE optional } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics          PRESENCE optional },
    ...
}

CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureFDD,
```

```
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureFDD,
    ...
}

GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD        SuccessfulRL-InformationResponseList-RL-SetupFailureFDD  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                         CRITICALITY ignore      EXTENSION HSDSCH-RNTI                         PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response        CRITICALITY ignore    EXTENSION Continuous-Packet-Connectivity-
HS-SCCH-Less-Information-Response       PRESENCE optional }|
    { ID id-SixtyfourQAM-DL-SupportIndicator    CRITICALITY ignore      EXTENSION SixtyfourQAM-DL-SupportIndicator    PRESENCE optional }|
    { ID id-Additional-HS-Cell-Information-Response CRITICALITY ignore      EXTENSION Additional-HS-Cell-Information-Response-List   PRESENCE
optional }|
    { ID id-Additional-EDCH-Cell-Information-Response       CRITICALITY ignore  EXTENSION   Additional-EDCH-Cell-Information-Response-List
    PRESENCE optional},
    ...
}

UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD       CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-
SetupFailureFDD     PRESENCE mandatory  }
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Max-UE-DTX-Cycle        CRITICALITY ignore      EXTENSION Max-UE-DTX-Cycle          PRESENCE conditional },
    -- This IE shall be present if the Cause IE is set to "Continuous Packet Connectivity UE DTX Cycle not Available".
    ...
}
```

```
SuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {SuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD     CRITICALITY ignore  TYPE SuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory  }
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    rL-Set-ID                               RL-Set-ID,
    uRA-Information                         URA-Information                     OPTIONAL,
    sAI                                     SAI,
    gA-Cell                                 GA-Cell     OPTIONAL,
    gA-AccessPointPosition                  GA-AccessPointPosition              OPTIONAL,
    received-total-wide-band-power          Received-total-wide-band-power,
    not-Used-secondary-CCPCH-Info                   NULL                OPTIONAL,
    dl-CodeInformation                      FDD-DL-CodeInformation,
    diversityIndication                     DiversityIndication-RL-SetupFailureFDD,
    sSDT-SupportIndicator                   SSDT-SupportIndicator,
    maxUL-SIR                               UL-SIR,
    minUL-SIR                               UL-SIR,
    closedlooptimingadjustmentmode          Closedlooptimingadjustmentmode      OPTIONAL,
    maximumAllowedULTxPower                 MaximumAllowedULTxPower,
    maximumDLTxPower                        DL-Power,
    minimumDLTxPower                        DL-Power,
    primaryCPICH-Power                      PrimaryCPICH-Power,
    primaryScramblingCode                   PrimaryScramblingCode               OPTIONAL,
    uL-UARFCN                               UARFCN                              OPTIONAL,
    dL-UARFCN                               UARFCN                              OPTIONAL,
    not-Used-dSCH-InformationResponse-RL-SetupFailureFDD    NULL                OPTIONAL,
    neighbouring-UMTS-CellInformation       Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation        Neighbouring-GSM-CellInformation    OPTIONAL,
    pC-Preamble                             PC-Preamble,
    sRB-Delay                               SRB-Delay,
    iE-Extensions                           ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                     CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                     PRESENCE optional
}|
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
    { ID id-HCS-Prio                                    CRITICALITY ignore  EXTENSION HCS-Prio                                    PRESENCE optional
}|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation  CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation  PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information                 CRITICALITY ignore  EXTENSION Secondary-CPICH-Information                 PRESENCE
optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL           CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL      PRESENCE
optional }|
```

```
    { ID id-EDCH-RLSet-Id                              CRITICALITY ignore  EXTENSION RL-Set-ID                                PRESENCE
optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation      CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation      PRESENCE
optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment           CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                 PRESENCE optional
}|
    { ID id-Neighbouring-E-UTRA-CellInformation        CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation       PRESENCE optional
}|
    { ID id-HSDSCH-PreconfigurationInfo                CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationInfo               PRESENCE optional
}|
    { ID id-F-DPCH-SlotFormat                          CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                         PRESENCE optional
}|
    { ID id-Non-Serving-RL-Preconfig-Info              CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Info             PRESENCE optional
},
    ...
}

DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining                       Combining-RL-SetupFailureFDD,
    nonCombiningOrFirstRL       NonCombiningOrFirstRL-RL-SetupFailureFDD
}

Combining-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse      PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponse                 DCH-InformationResponse,
    iE-Extensions                           ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE TDD
--
-- **************************************************************
```

```
RadioLinkSetupFailureTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupFailureTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-SetupFailureTDD   CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureTDD     PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics            PRESENCE optional },
    ...
}

CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureTDD,
    ...
}

GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD  Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
    iE-Extensions                                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-SixtyfourQAM-DL-SupportIndicator    CRITICALITY ignore      EXTENSION SixtyfourQAM-DL-SupportIndicator    PRESENCE optional },
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD}
}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD RNSAP-PROTOCOL-IES ::= {
    { ID    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD        CRITICALITY ignore    TYPE  UnsuccessfulRL-InformationResponse-RL-
SetupFailureTDD     PRESENCE    mandatory   }
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST FDD
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-- **************************************************************

RadioLinkAdditionRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-SIRTarget                CRITICALITY reject  TYPE UL-SIR                 PRESENCE mandatory } |
    { ID id-RL-InformationList-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-InformationList-RL-AdditionRqstFDD  PRESENCE mandatory   }|
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject  TYPE Active-Pattern-Sequence-Information   PRESENCE optional },
    ...
}

RL-InformationList-RL-AdditionRqstFDD           ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Information-RL-
AdditionRqstFDD-IEs} }

RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-Information-RL-AdditionRqstFDD    PRESENCE mandatory   }
}

RL-Information-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    frameOffset                     FrameOffset,
    chipOffset                      ChipOffset,
    diversityControlField           DiversityControlField,
    primaryCPICH-EcNo               PrimaryCPICH-EcNo       OPTIONAL,
    not-Used-sSDT-CellID            NULL            OPTIONAL,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-AdditionRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower    CRITICALITY ignore      EXTENSION   DL-Power        PRESENCE optional}|
    { ID id-Enhanced-PrimaryCPICH-EcNo              CRITICALITY ignore  EXTENSION Enhanced-PrimaryCPICH-EcNo          PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info                    CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info                PRESENCE optional }|
    { ID id-DelayedActivation                       CRITICALITY reject  EXTENSION DelayedActivation                   PRESENCE optional }|
```

```
    { ID id-RL-Specific-EDCH-Information           CRITICALITY reject  EXTENSION RL-Specific-EDCH-Information        PRESENCE optional }|
    { ID id-EDCH-RL-Indication                     CRITICALITY reject  EXTENSION EDCH-RL-Indication               PRESENCE optional }|
    { ID id-SynchronisationIndicator               CRITICALITY ignore  EXTENSION SynchronisationIndicator         PRESENCE optional }|
    { ID id-HSDSCH-PreconfigurationSetup           CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationSetup        PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Setup         CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Setup      PRESENCE optional },
    ...
}

RadioLinkAdditionRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode                                  CRITICALITY reject  EXTENSION DPC-Mode                                  PRESENCE optional
}|
    { ID id-Permanent-NAS-UE-Identity                 CRITICALITY ignore  EXTENSION Permanent-NAS-UE-Identity                  PRESENCE optional
}|
       { ID id-Serving-EDCHRL-Id                      CRITICALITY reject  EXTENSION EDCH-Serving-RL                            PRESENCE
optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed  CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed  PRESENCE optional
}|
    { ID id-HS-DSCH-serving-cell-change-information   CRITICALITY reject  EXTENSION HS-DSCH-serving-cell-change-information   PRESENCE optional
}|
    { ID id-Serving-cell-change-CFN                   CRITICALITY reject  EXTENSION CFN                                     PRESENCE optional
}|
    { ID id-EDPCH-Information                         CRITICALITY reject  EXTENSION EDPCH-Information-RLAdditionReq-FDD      PRESENCE
optional }|
    { ID id-EDCH-FDD-Information                      CRITICALITY reject  EXTENSION EDCH-FDD-Information                      PRESENCE
optional }|
    { ID id-Additional-HS-Cell-Information-RL-Addition  CRITICALITY reject  EXTENSION Additional-HS-Cell-Information-RL-Addition-List PRESENCE
optional }|
    -- This IE shall be present if E-DPCH Information is present
    { ID id-UE-AggregateMaximumBitRate                CRITICALITY ignore  EXTENSION UE-AggregateMaximumBitRate               PRESENCE optional
    }|
    { ID id-Additional-EDCH-Cell-Information-RL-Add-Req     CRITICALITY reject  EXTENSION Additional-EDCH-Cell-Information-RL-Add-Req      PRESENCE
optional },
    ...
}

Additional-HS-Cell-Information-RL-Addition-List ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Additional-HS-Cell-Information-RL-Addition-ItemIEs



Additional-HS-Cell-Information-RL-Addition-ItemIEs  ::=SEQUENCE{
    hSPDSCH-RL-ID                             RL-ID,
    c-ID                                      C-ID,
    hS-DSCH-FDD-Secondary-Serving-Information  HS-DSCH-FDD-Secondary-Serving-Information,
    iE-Extensions                  ProtocolExtensionContainer { { Additional-HS-Cell-Information-RL-Addition-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-HS-Cell-Information-RL-Addition-ItemIEs-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-RL-Add-Req ::=SEQUENCE{
    setup-Or-Addition-Of-EDCH-On-secondary-UL-Frequency                    Setup-Or-Addition-Of-EDCH-On-secondary-UL-Frequency,
    iE-Extensions                  ProtocolExtensionContainer { { Additional-EDCH-Cell-Information-RL-Add-Req-ExtIEs} } OPTIONAL,
```

```
    ...
}

Additional-EDCH-Cell-Information-RL-Add-Req-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Setup-Or-Addition-Of-EDCH-On-secondary-UL-Frequency::= CHOICE {
    setup           Additional-EDCH-Setup-Info,
    addition        Additional-EDCH-Cell-Information-To-Add-List,
    ...
}

EDPCH-Information-RLAdditionReq-FDD::= SEQUENCE {
    maxSet-E-DPDCHs                         Max-Set-E-DPDCHs,
    ul-PunctureLimit                        PunctureLimit,
    e-TFCS-Information                      E-TFCS-Information,
    e-TTI                                   E-TTI,
    e-DPCCH-PO                              E-DPCCH-PO,
    e-RGCH-2-IndexStepThreshold             E-RGCH-2-IndexStepThreshold,
    e-RGCH-3-IndexStepThreshold             E-RGCH-3-IndexStepThreshold,
    hARQ-Info-for-E-DCH                     HARQ-Info-for-E-DCH,
    iE-Extensions                           ProtocolExtensionContainer { { EDPCH-Information-RLAdditionReq-FDD-ExtIEs} }   OPTIONAL,
    ...
}

EDPCH-Information-RLAdditionReq-FDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HSDSCH-Configured-Indicator     CRITICALITY reject  EXTENSION   HSDSCH-Configured-Indicator                PRESENCE mandatory}|
-- This shall be present for EDPCH configuration with HSDCH
{ ID id-MinimumReducedE-DPDCH-GainFactor        CRITICALITY ignore  EXTENSION MinimumReducedE-DPDCH-GainFactor     PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST TDD
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-- **************************************************************

RadioLinkAdditionRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstTDD   CRITICALITY reject  TYPE RL-Information-RL-AdditionRqstTDD    PRESENCE mandatory   },
    ...
}

RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    frameOffset                     FrameOffset,
```

```
    diversityControlField           DiversityControlField,
    primaryCCPCH-RSCP               PrimaryCCPCH-RSCP       OPTIONAL,
    dL-TimeSlot-ISCP-Info           DL-TimeSlot-ISCP-Info   OPTIONAL,
    --for 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD   CRITICALITY reject       EXTENSION DL-TimeSlot-ISCP-LCR-Information    PRESENCE
optional }|
    --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info                    CRITICALITY ignore       EXTENSION RL-Specific-DCH-Info                    PRESENCE optional }|
    { ID id-DelayedActivation                       CRITICALITY reject       EXTENSION DelayedActivation                       PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR       CRITICALITY reject       EXTENSION UL-Synchronisation-Parameters-LCR       PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-PrimaryCCPCH-RSCP-Delta                 CRITICALITY ignore       EXTENSION PrimaryCCPCH-RSCP-Delta                 PRESENCE optional }|
    { ID id-IdleIntervalConfigurationIndicator      CRITICALITY ignore       EXTENSION NULL                                    PRESENCE optional },
    ...
}

RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity               CRITICALITY ignore          EXTENSION Permanent-NAS-UE-Identity   PRESENCE optional }|
    { ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY notify  EXTENSION UL-CCTrCH-InformationList-RL-AdditionRqstTDD  PRESENCE
optional    } |
    { ID id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY notify  EXTENSION DL-CCTrCH-InformationList-RL-AdditionRqstTDD  PRESENCE
optional    }|
    { ID id-HSDSCH-TDD-Information                  CRITICALITY reject      EXTENSION HSDSCH-TDD-Information        PRESENCE optional }|
    { ID id-HSPDSCH-RL-ID                           CRITICALITY reject      EXTENSION RL-ID                         PRESENCE optional }|
    { ID id-E-DCH-Information                       CRITICALITY reject      EXTENSION E-DCH-Information             PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID                     CRITICALITY reject      EXTENSION RL-ID                         PRESENCE optional }|
    { ID id-E-DCH-768-Information                   CRITICALITY reject      EXTENSION E-DCH-768-Information         PRESENCE optional }|
    { ID id-E-DCH-LCR-Information                   CRITICALITY reject      EXTENSION E-DCH-LCR-Information         PRESENCE optional }|
    { ID id-ContinuousPacketConnectivity-DRX-InformationLCR     CRITICALITY reject      EXTENSION ContinuousPacketConnectivity-DRX-InformationLCR
           PRESENCE optional }|
    { ID id-HS-DSCH-Semi-PersistentScheduling-Information-LCR   CRITICALITY reject      EXTENSION HS-DSCH-Semi-PersistentScheduling-Information-LCR
       PRESENCE optional }|
    { ID id-E-DCH-Semi-PersistentScheduling-Information-LCR     CRITICALITY reject      EXTENSION E-DCH-Semi-PersistentScheduling-Information-LCR
       PRESENCE optional }|
    { ID id-DCH-MeasurementType-Indicator           CRITICALITY reject      EXTENSION DCH-MeasurementType-Indicator PRESENCE optional},
    ...
}

UL-CCTrCH-InformationList-RL-AdditionRqstTDD    ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-AdditionRqstTDD} }

UL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationItem-RL-AdditionRqstTDD PRESENCE
optional},
    ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
```

```
    uplinkStepSizeLCR           TDD-TPC-UplinkStepSize-LCR    OPTIONAL,
    -- Applicable to 1.28Mcps TDD only
    iE-Extensions               ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-AdditionRqstTDD    ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-AdditionRqstTDD} }

DL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-AdditionRqstTDD PRESENCE
optional},
    ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    downlinkStepSize            TDD-TPC-DownlinkStepSize   OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- **************************************************************

RadioLinkAdditionResponseFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionResponseFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-AdditionRspFDD    PRESENCE
mandatory   } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-AdditionRspFDD        ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-AdditionRspFDD} }

RL-InformationResponseItemIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD       CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-AdditionRspFDD   PRESENCE
mandatory   }
}

RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    rL-Set-ID                       RL-Set-ID,
    uRA-Information                 URA-Information     OPTIONAL,
    sAI                             SAI,
    gA-Cell                         GA-Cell     OPTIONAL,
    gA-AccessPointPosition          GA-AccessPointPosition  OPTIONAL,
    received-total-wide-band-power  Received-total-wide-band-power,
    not-Used-secondary-CCPCH-Info           NULL        OPTIONAL,
    dl-CodeInformation              DL-CodeInformationList-RL-AdditionRspFDD,
    diversityIndication             DiversityIndication-RL-AdditionRspFDD,

    sSDT-SupportIndicator               SSDT-SupportIndicator,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    closedlooptimingadjustmentmode      Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    maximumDLTxPower                    DL-Power,
    minimumDLTxPower                    DL-Power,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble                         PC-Preamble,
    sRB-Delay                           SRB-Delay,
    primaryCPICH-Power                  PrimaryCPICH-Power,
    iE-Extensions                       ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                 CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                   PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator   CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator     PRESENCE optional }|
    { ID id-HCS-Prio                                CRITICALITY ignore  EXTENSION HCS-Prio                                  PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL       CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL     PRESENCE optional }|
    { ID id-EDCH-RLSet-Id                           CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation   CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation     PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment        CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                       CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                         PRESENCE optional }|
    { ID id-Neighbouring-E-UTRA-CellInformation     CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation       PRESENCE optional }|
    { ID id-HSDSCH-PreconfigurationInfo             CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationInfo               PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Info           CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Info             PRESENCE optional },
    ...
}

DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}

DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE mandatory }
}

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
```

```
    combining                       Combining-RL-AdditionRspFDD,
    nonCombining                    NonCombining-RL-AdditionRspFDD
}

Combining-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse      PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

NonCombining-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-InformationResponse                 DCH-InformationResponse,
    iE-Extensions                               ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

RadioLinkAdditionResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-DSCH-serving-cell-change-informationResponse CRITICALITY ignore  EXTENSION HS-DSCH-serving-cell-change-informationResponse
    PRESENCE optional}|
    { ID id-E-DCH-Serving-cell-change-informationResponse   CRITICALITY ignore  EXTENSION E-DCH-Serving-cell-change-informationResponse
    PRESENCE optional}|
    { ID id-MAChs-ResetIndicator                            CRITICALITY ignore  EXTENSION MAChs-ResetIndicator
    PRESENCE optional}|
    { ID id-Additional-HS-Cell-Change-Information-Response  CRITICALITY ignore  EXTENSION Additional-HS-Cell-Change-Information-Response-List
    PRESENCE optional}|
    { ID id-Additional-EDCH-Cell-Information-Response-RLAdd CRITICALITY ignore  EXTENSION Additional-EDCH-Cell-Information-Response-RLAddList
    PRESENCE optional },
    ...
}

Additional-HS-Cell-Change-Information-Response-List ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Additional-HS-Cell-Change-Information-Response-
ItemIEs



Additional-HS-Cell-Change-Information-Response-ItemIEs  ::=SEQUENCE{
    hSPDSCH-RL-ID                                           RL-ID,
    hSDSCH-RNTI                                             HSDSCH-RNTI,
    hS-DSCH-Secondary-Serving-Cell-Change-Information-Response  HS-DSCH-Secondary-Serving-Cell-Change-Information-Response,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-HS-Cell-Change-Information-Response-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}
```

```
Additional-HS-Cell-Change-Information-Response-ItemIEs-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- **************************************************************

RadioLinkAdditionResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD        CRITICALITY ignore  TYPE RL-InformationResponse-RL-AdditionRspTDD  PRESENCE optional }
|
    --Mandatory for 3.84Mcps TDD only
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    uRA-Information                     URA-Information     OPTIONAL,
    sAI                                 SAI,
    gA-Cell                             GA-Cell     OPTIONAL,
    gA-AccessPointPosition              GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info               UL-TimeSlot-ISCP-Info,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    maximumDLTxPower                    DL-Power,
    minimumDLTxPower                    DL-Power,
    pCCPCH-Power                        PCCPCH-Power,
    timingAdvanceApplied                TimingAdvanceApplied,
    alphaValue                          AlphaValue,
    ul-PhysCH-SF-Variation              UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD            Secondary-CCPCH-Info-TDD                        OPTIONAL,
    ul-CCTrCHInformation                UL-CCTrCHInformationList-RL-AdditionRspTDD      OPTIONAL,
    dl-CCTrCHInformation                DL-CCTrCHInformationList-RL-AdditionRspTDD      OPTIONAL,
    dCH-Information                     DCH-Information-RL-AdditionRspTDD               OPTIONAL,
    dSCH-InformationResponse            DSCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    uSCH-InformationResponse            USCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
RL-InformationResponse-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes                PRESENCE optional }|
    { ID id-HCS-Prio                               CRITICALITY ignore  EXTENSION   HCS-Prio                               PRESENCE optional }|
    { ID id-Neighbouring-E-UTRA-CellInformation     CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation       PRESENCE optional },
    ...
}

UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}

UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD    PRESENCE
mandatory }
}

UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD

UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-RL-AdditionRspTDD       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD} }

UL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD  PRESENCE mandatory
    }
}

UL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-Timeslot-Information         UL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}

DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD    PRESENCE
mandatory }
}
```

```
DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD

DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-Information              DL-DPCH-InformationList-RL-AdditionRspTDD       OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD       CRITICALITY ignore      EXTENSION  DL-Power    PRESENCE optional}| -- this is a DCH
type CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD       CRITICALITY ignore      EXTENSION  DL-Power    PRESENCE optional}, -- this is a DCH
type CCTrCH power
    ...
}

DL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD} }

DL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD  PRESENCE mandatory
    }
}

DL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information         DL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication                DiversityIndication-RL-AdditionRspTDD,

    iE-Extensions                   ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-Information-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining       Combining-RL-AdditionRspTDD,
    nonCombining    NonCombining-RL-AdditionRspTDD
}

Combining-RL-AdditionRspTDD ::= SEQUENCE {
```

```
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse      PRESENCE optional },
    ...
}

NonCombining-RL-AdditionRspTDD  ::= SEQUENCE {
    dCH-InformationResponse     DCH-InformationResponse,
    iE-Extensions                   ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationListIEs-RL-AdditionRspTDD}}

DSCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIE-RL-AdditionRspTDD    CRITICALITY ignore  TYPE DSCH-InformationListIE-RL-AdditionRspTDD   PRESENCE mandatory }
}

DSCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-AdditionRspTDD

DSCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    transportFormatManagement   TransportFormatManagement,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    diversityIndication     DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
    iE-Extensions           ProtocolExtensionContainer { {DSCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD2 ::= SEQUENCE {
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {DiversityIndication-RL-AdditionRspTDD2-ExtIEs} } OPTIONAL,
    ...
}
DiversityIndication-RL-AdditionRspTDD2-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationListIEs-RL-AdditionRspTDD}}
```

```
USCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIE-RL-AdditionRspTDD    CRITICALITY ignore  TYPE USCH-InformationListIE-RL-AdditionRspTDD   PRESENCE mandatory }
}

USCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-AdditionRspTDD

USCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    uSCH-ID                 USCH-ID,
    transportFormatManagement   TransportFormatManagement,
    diversityIndication     DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
    iE-Extensions           ProtocolExtensionContainer { {USCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-AdditionRspTDD    CRITICALITY ignore      EXTENSION   RL-LCR-InformationResponse-RL-AdditionRspTDD
    PRESENCE optional   }|
    --Mandatory for 1.28Mcps TDD only
    { ID id-Active-MBMS-Bearer-ServiceTDD-PFL               CRITICALITY ignore      EXTENSION Active-MBMS-Bearer-Service-ListTDD-PFL
    PRESENCE optional}|
    { ID id-HSDSCH-TDD-Information-Response                 CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response
    PRESENCE optional }|
    { ID id-DSCH-RNTI                                       CRITICALITY ignore      EXTENSION DSCH-RNTI
    PRESENCE optional }|
    { ID id-RL-InformationResponse-RL-AdditionRspTDD768     CRITICALITY ignore      EXTENSION RL-InformationResponse-RL-AdditionRspTDD768
        PRESENCE optional}|
    { ID id-E-DCH-Information-Response                      CRITICALITY ignore      EXTENSION E-DCH-Information-Response
    PRESENCE optional   }|
    { ID id-E-DCH-768-Information-Response                  CRITICALITY ignore      EXTENSION E-DCH-768-Information-Response
    PRESENCE optional   }|
    { ID id-E-DCH-LCR-Information-Response                  CRITICALITY ignore      EXTENSION E-DCH-LCR-Information-Response
    PRESENCE optional   }|
    { ID id-ContinuousPacketConnectivity-DRX-Information-ResponseLCR                CRITICALITY ignore                EXTENSION
ContinuousPacketConnectivity-DRX-Information-ResponseLCR            PRESENCE optional   }|
    { ID id-HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR       CRITICALITY ignore                      EXTENSION HS-DSCH-Semi-
PersistentScheduling-Information-ResponseLCR            PRESENCE optional   }|
    { ID id-E-DCH-Semi-PersistentScheduling-Information-ResponseLCR     CRITICALITY ignore       EXTENSION E-DCH-Semi-PersistentScheduling-
Information-ResponseLCR         PRESENCE optional}|
    { ID id-DCH-MeasurementOccasion-Information             CRITICALITY reject      EXTENSION DCH-MeasurementOccasion-Information
    PRESENCE optional},
    ...
}

RL-LCR-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    uRA-Information             URA-Information,
    sAI                         SAI,
    gA-Cell                     GA-Cell     OPTIONAL,
    gA-AccessPointPosition      GA-AccessPointPosition  OPTIONAL,
```

```
    ul-TimeSlot-ISCP-LCR-Info   UL-TimeSlot-ISCP-LCR-Info,
    maxUL-SIR                   UL-SIR,
    minUL-SIR                   UL-SIR,
    pCCPCH-Power                PCCPCH-Power,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    maximumDLTxPower            DL-Power,
    minimumDLTxPower            DL-Power,
    alphaValue                  AlphaValue,
    ul-PhysCH-SF-Variation      UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD        Secondary-LCR-CCPCH-Info-TDD                        OPTIONAL,
    ul-CCTrCH-LCR-Information           UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD     OPTIONAL,
    dl-CCTrCH-LCR-Information           DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD     OPTIONAL,
    dCH-InformationResponse             DCH-InformationResponseList-RL-AdditionRspTDD       OPTIONAL,
    dsch-LCR-InformationResponse        DSCH-LCR-InformationResponse-RL-AdditionRspTDD  OPTIONAL,
    usch-LCR-InformationResponse            USCH-LCR-InformationResponse-RL-AdditionRspTDD  OPTIONAL,
    neighbouring-UMTS-CellInformation           Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation            Neighbouring-GSM-CellInformation            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                 CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes                 PRESENCE optional }|
    { ID id-HCS-Prio                                CRITICALITY ignore  EXTENSION   HCS-Prio                                PRESENCE optional }|
    { ID id-UL-TimingAdvanceCtrl-LCR                CRITICALITY ignore  EXTENSION   UL-TimingAdvanceCtrl-LCR                PRESENCE optional }|
    --Mandatory for 1.28Mcps TDD only
    { ID id-PowerControlGAP                         CRITICALITY ignore  EXTENSION ControlGAP                                PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UARFCNforNt                             CRITICALITY ignore  EXTENSION UARFCN                                    PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Neighbouring-E-UTRA-CellInformation     CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation       PRESENCE optional }|
    { ID id-IdleIntervalInformation                         CRITICALITY ignore  EXTENSION   IdleIntervalInformation         PRESENCE optional },
    ...
}

UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD }}

UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD
    PRESENCE mandatory }
}

UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD

UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-LCR-Information             UL-DPCH-LCR-InformationList-RL-AdditionRspTDD       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

UL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }

UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD  PRESENCE
mandatory   }
}

UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-TimeslotLCR-Information      UL-TimeslotLCR-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD}}

DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD
PRESENCE mandatory }
}

DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD

DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-LCR-Information     DL-DPCH-LCR-InformationList-RL-AdditionRspTDD       OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }

DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD  PRESENCE
mandatory   }
}

DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
```

```
    dL-TimeslotLCR-Information      DL-TimeslotLCR-Information,
    tSTD-Indicator                  TSTD-Indicator,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-AdditionRspTDD}}

DCH-InformationResponseListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse  PRESENCE mandatory }
}

DSCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-AdditionRspTDD}}

DSCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD       CRITICALITY ignore  TYPE DSCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
}

DSCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-AdditionRspTDD

DSCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions           ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-AdditionRspTDD}}

USCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD       CRITICALITY ignore  TYPE USCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
}

USCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-AdditionRspTDD

USCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    usch-ID                     USCH-ID,
    transportFormatManagement   TransportFormatManagement,
    diversityIndication         DiversityIndication-RL-AdditionRspTDD2      OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationResponse-RL-AdditionRspTDD768 ::= SEQUENCE {
    rL-ID                               RL-ID,
    uRA-Information                     URA-Information     OPTIONAL,
    sAI                                 SAI,
    gA-Cell                             GA-Cell     OPTIONAL,
    gA-AccessPointPosition              GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info               UL-TimeSlot-ISCP-Info,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    maximumDLTxPower                    DL-Power,
    minimumDLTxPower                    DL-Power,
    pCCPCH-Power                        PCCPCH-Power,
    timingAdvanceApplied                TimingAdvanceApplied,
    alphaValue                          AlphaValue,
    ul-PhysCH-SF-Variation              UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD768         Secondary-CCPCH-Info-TDD768                     OPTIONAL,
    ul-CCTrCHInformation768             UL-CCTrCHInformationList-RL-AdditionRspTDD768       OPTIONAL,
    dl-CCTrCHInformation768             DL-CCTrCHInformationList-RL-AdditionRspTDD768       OPTIONAL,
    dCH-Information                     DCH-Information-RL-AdditionRspTDD               OPTIONAL,
    dSCH-InformationResponse            DSCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    uSCH-InformationResponse            USCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    gA-CellAdditionalShapes             GA-CellAdditionalShapes         OPTIONAL,
    hCS-Prio                            HCS-Prio                        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Neighbouring-E-UTRA-CellInformation     CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation          PRESENCE optional },
    ...
}

UL-CCTrCHInformationList-RL-AdditionRspTDD768 ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD768}}

UL-CCTrCHInformationListIEs-RL-AdditionRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD768   CRITICALITY ignore   TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD768   PRESENCE
mandatory }
}

UL-CCTrCHInformationListIE-RL-AdditionRspTDD768 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD768

UL-CCTrCHInformationItem-RL-AdditionRspTDD768 ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-Information768              UL-DPCH-InformationList-RL-AdditionRspTDD768        OPTIONAL,
```

```
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-AdditionRspTDD768 ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD768} }

UL-DPCH-InformationListIEs-RL-AdditionRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD768  PRESENCE
mandatory   }
}

UL-DPCH-InformationItem-RL-AdditionRspTDD768 ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tDD-DPCHOffset                      TDD-DPCHOffset,
    uL-Timeslot-Information768          UL-Timeslot-Information768,
    iE-Extensions                       ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-AdditionRspTDD768 ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD768}}

DL-CCTrCHInformationListIEs-RL-AdditionRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD768   CRITICALITY ignore   TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD768   PRESENCE
mandatory }
}

DL-CCTrCHInformationListIE-RL-AdditionRspTDD768 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD768

DL-CCTrCHInformationItem-RL-AdditionRspTDD768 ::= SEQUENCE {
    cCTrCH-ID                           CCTrCH-ID,
    dl-DPCH-Information768              DL-DPCH-InformationList-RL-AdditionRspTDD768        OPTIONAL,
    cCTrCH-Maximum-DL-Power             DL-Power    OPTIONAL,-- this is a DCH type CCTrCH power
    cCTrCH-Minimum-DL-Power             DL-Power    OPTIONAL, -- this is a DCH type CCTrCH power
    iE-Extensions                       ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-AdditionRspTDD768 ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD768} }

DL-DPCH-InformationListIEs-RL-AdditionRspTDD768 RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD768        CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD768  PRESENCE
mandatory   }
}

DL-DPCH-InformationItem-RL-AdditionRspTDD768 ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information768      DL-Timeslot-Information768,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- **************************************************************

RadioLinkAdditionFailureFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionFailureFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureFDD                    CRITICALITY     ignore           TYPE CauseLevel-RL-AdditionFailureFDD
            PRESENCE    mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureFDD,
    ...
}

GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD       UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
```

```
    successful-RL-InformationRespList-RL-AdditionFailureFDD         SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD  OPTIONAL,
    iE-Extensions                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {
{UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs} }

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD    CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureFDD      PRESENCE mandatory  }
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-2)) OF ProtocolIE-Single-Container { {SuccessfulRL-
InformationResponse-RL-AdditionFailureFDD-IEs} }

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD      CRITICALITY ignore  TYPE SuccessfulRL-InformationResponse-RL-
AdditionFailureFDD      PRESENCE mandatory  }
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    rL-Set-ID                           RL-Set-ID,
    uRA-Information                     URA-Information     OPTIONAL,
    sAI                                 SAI,
    gA-Cell                             GA-Cell     OPTIONAL,
    gA-AccessPointPosition              GA-AccessPointPosition      OPTIONAL,
    received-total-wide-band-power      Received-total-wide-band-power,
    not-Used-secondary-CCPCH-Info               NULL        OPTIONAL,
    dl-CodeInformation                  DL-CodeInformationList-RL-AdditionFailureFDD,
    diversityIndication                 DiversityIndication-RL-AdditionFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator               SSDT-SupportIndicator,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    closedlooptimingadjustmentmode      Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
```

```
    maximumDLTxPower                    DL-Power,
    minimumDLTxPower                    DL-Power,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    primaryCPICH-Power                  PrimaryCPICH-Power,
    pC-Preamble                         PC-Preamble,
    sRB-Delay                           SRB-Delay,
    iE-Extensions                       ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                     CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                  PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator   PRESENCE optional }|
    { ID id-HCS-Prio                                    CRITICALITY ignore  EXTENSION HCS-Prio                               PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL           CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL  PRESENCE optional }|
    { ID id-EDCH-RLSet-Id                               CRITICALITY ignore  EXTENSION RL-Set-ID                              PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation       CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation   PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                PRESENCE optional }|
    { ID id-Neighbouring-E-UTRA-CellInformation         CRITICALITY ignore  EXTENSION Neighbouring-E-UTRA-CellInformation     PRESENCE optional }|
    { ID id-HSDSCH-PreconfigurationInfo                 CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationInfo             PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                           CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                       PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Info               CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Info           PRESENCE optional },
    ...
}

DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}

DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE mandatory }
}

DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining                       Combining-RL-AdditionFailureFDD,
    nonCombining                    NonCombining-RL-AdditionFailureFDD
}

Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse       PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse        PRESENCE optional },
    ...
}

NonCombining-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponse     DCH-InformationResponse,
    iE-Extensions                           ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
NonCombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

RadioLinkAdditionFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-DSCH-serving-cell-change-informationResponse CRITICALITY ignore  EXTENSION HS-DSCH-serving-cell-change-informationResponse
    PRESENCE optional}|
    { ID id-E-DCH-Serving-cell-change-informationResponse   CRITICALITY ignore  EXTENSION E-DCH-Serving-cell-change-informationResponse
    PRESENCE optional}|
    { ID id-Additional-HS-Cell-Change-Information-Response  CRITICALITY ignore  EXTENSION Additional-HS-Cell-Change-Information-Response-List
        PRESENCE optional}|
    { ID id-MAChs-ResetIndicator                            CRITICALITY ignore  EXTENSION MAChs-ResetIndicator
    PRESENCE optional}|
    { ID id-Additional-EDCH-Cell-Information-Response-RLAdd CRITICALITY ignore  EXTENSION Additional-EDCH-Cell-Information-Response-RLAddList
    PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE TDD
--
-- **************************************************************

RadioLinkAdditionFailureTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionFailureTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionFailureTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkAdditionFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureTDD    CRITICALITY ignore  TYPE CauseLevel-RL-AdditionFailureTDD  PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureTDD,
    ...
}

GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }     OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD   Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
    iE-Extensions                                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
        OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD RNSAP-PROTOCOL-IES ::= {
    { ID    id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD     CRITICALITY ignore    TYPE  UnsuccessfulRL-InformationResponse-RL-
AdditionFailureTDD  PRESENCE mandatory}
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK DELETION REQUEST
--
-- **************************************************************

RadioLinkDeletionRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkDeletionRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkDeletionRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationList-RL-DeletionRqst  CRITICALITY notify  TYPE RL-InformationList-RL-DeletionRqst     PRESENCE mandatory   },
    ...
}

RL-InformationList-RL-DeletionRqst          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-DeletionRqst-
IEs} }
```

```
RL-Information-RL-DeletionRqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-DeletionRqst      CRITICALITY notify  TYPE RL-Information-RL-DeletionRqst    PRESENCE mandatory   }
}

RL-Information-RL-DeletionRqst ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-DeletionRqst-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-DeletionRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkDeletionRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK DELETION RESPONSE
--
-- **************************************************************

RadioLinkDeletionResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkDeletionResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkDeletionResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RadioLinkDeletionResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationPrepareFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional   } |
```

```
    { ID id-UL-DPCH-Information-RL-ReconfPrepFDD           CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfPrepFDD      PRESENCE optional }
|
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD           CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfPrepFDD      PRESENCE optional }
|
    { ID id-FDD-DCHs-to-Modify      CRITICALITY reject  TYPE FDD-DCHs-to-Modify     PRESENCE optional   } |
    { ID id-DCHs-to-Add-FDD     CRITICALITY reject  TYPE DCH-FDD-Information        PRESENCE optional   } |
    { ID id-DCH-DeleteList-RL-ReconfPrepFDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepFDD     PRESENCE optional } |
    { ID id-RL-InformationList-RL-ReconfPrepFDD CRITICALITY reject  TYPE RL-InformationList-RL-ReconfPrepFDD  PRESENCE optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode               UL-ScramblingCode       OPTIONAL,
    ul-SIRTarget                    UL-SIR                  OPTIONAL,
    minUL-ChannelisationCodeLength  MinUL-ChannelisationCodeLength  OPTIONAL,
    maxNrOfUL-DPDCHs                MaxNrOfUL-DPCHs         OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 --,
    ul-PunctureLimit                PunctureLimit           OPTIONAL,
    tFCS                            TFCS    OPTIONAL,
    ul-DPCCH-SlotFormat             UL-DPCCH-SlotFormat     OPTIONAL,
    diversityMode                   DiversityMode           OPTIONAL,
    not-Used-sSDT-CellIDLength      NULL        OPTIONAL,
    not-Used-s-FieldLength          NULL            OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPDCHIndicatorEDCH   CRITICALITY reject      EXTENSION UL-DPDCHIndicatorEDCH PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    dl-DPCH-SlotFormat              DL-DPCH-SlotFormat      OPTIONAL,
    nrOfDLchannelisationcodes       NrOfDLchannelisationcodes   OPTIONAL,
    tFCI-SignallingMode             TFCI-SignallingMode     OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is from 12 to 16 --,
    multiplexingPosition            MultiplexingPosition        OPTIONAL,
    limitedPowerIncrease            LimitedPowerIncrease        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-Power-Information-RL-ReconfPrepFDD  CRITICALITY reject  EXTENSION DL-DPCH-Power-Information-RL-ReconfPrepFDD  PRESENCE optional
    },
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD ::= SEQUENCE {
```

```
    powerOffsetInformation                  PowerOffsetInformation-RL-ReconfPrepFDD,
    fdd-TPC-DownlinkStepSize                FDD-TPC-DownlinkStepSize,
    innerLoopDLPCStatus                     InnerLoopDLPCStatus,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs } }  OPTIONAL,
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO2-ForTPC-Bits                         PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs} }OPTIONAL,
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepFDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD         ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-ReconfPrepFDD-
IEs} }

RL-Information-RL-ReconfPrepFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-ReconfPrepFDD     CRITICALITY reject  TYPE RL-Information-RL-ReconfPrepFDD     PRESENCE mandatory   }
}

RL-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    not-Used-sSDT-Indication            NULL        OPTIONAL,
    not-Used-sSDT-CellIdentity          NULL        OPTIONAL,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and is not equal to "none"
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower                    CRITICALITY ignore  EXTENSION DL-Power                          PRESENCE optional }|
```

```
    { ID id-RL-Specific-DCH-Info               CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info              PRESENCE optional }|
    { ID id-DL-DPCH-TimingAdjustment           CRITICALITY reject  EXTENSION DL-DPCH-TimingAdjustment          PRESENCE optional }|
    { ID id-Phase-Reference-Update-Indicator   CRITICALITY ignore  EXTENSION Phase-Reference-Update-Indicator  PRESENCE optional }|
    { ID id-RL-Specific-EDCH-Information       CRITICALITY reject  EXTENSION RL-Specific-EDCH-Information      PRESENCE optional }|
    { ID id-EDCH-RL-Indication                 CRITICALITY reject  EXTENSION EDCH-RL-Indication                PRESENCE optional }|
    { ID id-HSDSCH-PreconfigurationSetup       CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationSetup      PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Setup     CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Setup    PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Removal   CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Setup    PRESENCE optional },
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-FDD-Information                          CRITICALITY reject  EXTENSION HSDSCH-FDD-Information               PRESENCE optional}|
    { ID id-HSDSCH-Information-to-Modify                    CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify         PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Add                         CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information         PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Delete                      CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete           PRESENCE optional}|
    { ID id-HSPDSCH-RL-ID                                   CRITICALITY reject  EXTENSION RL-ID                                PRESENCE optional}|
    { ID id-EDPCH-Information                               CRITICALITY reject  EXTENSION EDPCH-Information-RLReconfPrepare-FDD
    PRESENCE optional}|
    { ID id-EDCH-FDD-Information                            CRITICALITY reject  EXTENSION EDCH-FDD-Information               PRESENCE optional}|
    { ID id-EDCH-FDD-Information-To-Modify                  CRITICALITY reject  EXTENSION EDCH-FDD-Information-To-Modify       PRESENCE optional}|
    { ID id-EDCH-MACdFlows-To-Add                           CRITICALITY reject  EXTENSION EDCH-MACdFlows-Information           PRESENCE optional}|
    { ID id-EDCH-MACdFlows-To-Delete                        CRITICALITY reject  EXTENSION EDCH-MACdFlows-To-Delete             PRESENCE optional}|
    { ID id-Serving-EDCHRL-Id                               CRITICALITY reject  EXTENSION EDCH-Serving-RL                      PRESENCE optional }|
    { ID id-F-DPCH-Information-RL-ReconfPrepFDD             CRITICALITY reject  EXTENSION F-DPCH-Information-RL-ReconfPrepFDD  PRESENCE optional}|
    { ID id-Fast-Reconfiguration-Mode                       CRITICALITY ignore  EXTENSION Fast-Reconfiguration-Mode            PRESENCE optional }|
    { ID id-CPC-Information                                 CRITICALITY reject  EXTENSION CPC-Information                      PRESENCE optional}|
    { ID id-Additional-HS-Cell-Information-RL-Reconf-Prep   CRITICALITY reject  EXTENSION Additional-HS-Cell-Information-RL-Reconf-Prep    PRESENCE
optional}|
    { ID id-UE-AggregateMaximumBitRate                      CRITICALITY ignore  EXTENSION UE-AggregateMaximumBitRate          PRESENCE optional }|
    { ID id-Additional-EDCH-Cell-Information-RL-Reconf-Prep CRITICALITY reject  EXTENSION Additional-EDCH-Cell-Information-RL-Reconf-Prep
    PRESENCE optional },
    ...
}

Additional-HS-Cell-Information-RL-Reconf-Prep   ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Additional-HS-Cell-Information-RL-Reconf-Prep-ItemIEs

Additional-HS-Cell-Information-RL-Reconf-Prep-ItemIEs   ::=SEQUENCE{
    hSPDSCH-RL-ID                                   RL-ID,
    c-ID                                            C-ID                                                OPTIONAL,
    hS-DSCH-FDD-Secondary-Serving-Information       HS-DSCH-FDD-Secondary-Serving-Information        OPTIONAL,
    hS-DSCH-Secondary-Serving-Information-To-Modify HS-DSCH-Secondary-Serving-Information-To-Modify  OPTIONAL,
    hS-HS-DSCH-Secondary-Serving-Remove             HS-DSCH-Secondary-Serving-Remove    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-HS-Cell-Information-RL-Reconf-Prep-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-HS-Cell-Information-RL-Reconf-Prep-ItemIEs-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-RL-Reconf-Prep ::=SEQUENCE{
    setup-Or-ConfigurationChange-Or-Removal-Of-EDCH-On-secondary-UL-Frequency                    Setup-Or-ConfigurationChange-Or-Removal-Of-
EDCH-On-secondary-UL-Frequency,
```

```
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-Cell-Information-RL-Reconf-Prep-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-Cell-Information-RL-Reconf-Prep-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation          PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD,
    fdd-dl-TPC-DownlinkStepSize     FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease            LimitedPowerIncrease,
    innerLoopDLPCStatus             InnerLoopDLPCStatus,
    iE-Extensions                   ProtocolExtensionContainer { { F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }               OPTIONAL,
    ...
}

F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-F-DPCH-SlotFormatSupportRequest     CRITICALITY reject          EXTENSION F-DPCH-SlotFormatSupportRequest    PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat               CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat     PRESENCE optional},
    ...
}

PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD ::= SEQUENCE {
    po2-ForTPC-Bits                 PowerOffset,
    --This IE shall be ignored by DRNS
    iE-Extensions                   ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE TDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationPrepareTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional   } |
    { ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD PRESENCE optional
    } |
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD  PRESENCE
optional    } |
```

```
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD  PRESENCE
optional    } |
    { ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional
    } |
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD  PRESENCE
optional    } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD  PRESENCE
optional    } |
    { ID id-TDD-DCHs-to-Modify      CRITICALITY reject  TYPE TDD-DCHs-to-Modify     PRESENCE optional   } |
    { ID id-DCHs-to-Add-TDD     CRITICALITY reject  TYPE DCH-TDD-Information        PRESENCE optional   } |
    { ID id-DCH-DeleteList-RL-ReconfPrepTDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepTDD     PRESENCE optional }|
    { ID id-DSCH-ModifyList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE DSCH-ModifyList-RL-ReconfPrepTDD    PRESENCE optional } |
    { ID id-DSCHs-to-Add-TDD        CRITICALITY reject  TYPE DSCH-TDD-Information           PRESENCE optional } |
    { ID id-DSCH-DeleteList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE DSCH-DeleteList-RL-ReconfPrepTDD    PRESENCE optional } |
    { ID id-USCH-ModifyList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE USCH-ModifyList-RL-ReconfPrepTDD    PRESENCE optional } |
    { ID id-USCHs-to-Add        CRITICALITY reject  TYPE USCH-Information           PRESENCE optional   } |
    { ID id-USCH-DeleteList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE USCH-DeleteList-RL-ReconfPrepTDD    PRESENCE optional },
    ...
}

UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD       ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
AddInformation-RL-ReconfPrepTDD-IEs} }

UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD   CRITICALITY notify  TYPE UL-CCTrCH-AddInformation-RL-ReconfPrepTDD  PRESENCE mandatory   }
}

UL-CCTrCH-AddInformation-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS,
    tFCI-Coding                 TFCI-Coding,
    punctureLimit                   PunctureLimit,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget        CRITICALITY reject      EXTENSION       UL-SIR      PRESENCE optional}|
    -- This IE shall be mandatory for 1.28Mcps TDD, not applicable for 3.84Mcps TDD or 7.68Mcps TDD.
     { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR  PRESENCE optional
       },
    -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }

UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD    CRITICALITY notify  TYPE UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD PRESENCE
mandatory   }
}

UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD ::= SEQUENCE {
```

```
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS        OPTIONAL,
    tFCI-Coding                 TFCI-Coding             OPTIONAL,
    punctureLimit                   PunctureLimit               OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget        CRITICALITY reject      EXTENSION       UL-SIR      PRESENCE optional}|
    -- This IE shall be applicable for 1.28Mcps TDD only.
    { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION  TDD-TPC-UplinkStepSize-LCR    PRESENCE
    optional    },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }

UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD    CRITICALITY notify  TYPE UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD PRESENCE
mandatory   }
}

UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD       ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
AddInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDDPRESENCE
mandatory   }
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS,
    tFCI-Coding                 TFCI-Coding,
    punctureLimit                   PunctureLimit,
    cCTrCH-TPCList                  CCTrCH-TPCAddList-RL-ReconfPrepTDD  OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD    CRITICALITY reject  EXTENSION   TDD-TPC-DownlinkStepSize   PRESENCE optional
      },
    ...
}

CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD

CCTrCH-TPCAddItem-RL-ReconfPrepTDD   ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD  PRESENCE
mandatory   }
}

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS        OPTIONAL,
    tFCI-Coding                 TFCI-Coding             OPTIONAL,
    punctureLimit                   PunctureLimit               OPTIONAL,
    cCTrCH-TPCList                  CCTrCH-TPCModifyList-RL-ReconfPrepTDD       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD  CRITICALITY reject    EXTENSION  TDD-TPC-DownlinkStepSize   PRESENCE
    optional},
    ...
}

CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD  PRESENCE
mandatory   }
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepTDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD

DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    iE-Extensions               ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfPrepTDD

DSCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID                         DSCH-ID,
    dl-ccTrCHID                     CCTrCH-ID                       OPTIONAL,
    trChSourceStatisticsDescriptor  TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet              TransportFormatSet              OPTIONAL,
    allocationRetentionPriority     AllocationRetentionPriority     OPTIONAL,
    schedulingPriorityIndicator     SchedulingPriorityIndicator     OPTIONAL,
    bLER                            BLER                            OPTIONAL,
    transportBearerRequestIndicator TransportBearerRequestIndicator,
    iE-Extensions                   ProtocolExtensionContainer { {DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass                    CRITICALITY ignore  EXTENSION TrafficClass                  PRESENCE optional }|
    { ID id-BindingID                       CRITICALITY ignore      EXTENSION   BindingID               PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress   PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                          CRITICALITY ignore      EXTENSION   TnlQos                  PRESENCE optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
```

```
}

DSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-DeleteItem-RL-ReconfPrepTDD

DSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID                         DSCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-ModifyItem-RL-ReconfPrepTDD

USCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                         USCH-ID,
    ul-ccTrCHID                     CCTrCH-ID                       OPTIONAL,
    trChSourceStatisticsDescriptor  TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet              TransportFormatSet              OPTIONAL,
    allocationRetentionPriority     AllocationRetentionPriority     OPTIONAL,
    schedulingPriorityIndicator     SchedulingPriorityIndicator     OPTIONAL,
    bLER                            BLER                            OPTIONAL,
    transportBearerRequestIndicator TransportBearerRequestIndicator,
    rb-Info                         RB-Info                         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass            CRITICALITY ignore  EXTENSION TrafficClass              PRESENCE optional }|
    { ID id-BindingID               CRITICALITY ignore  EXTENSION   BindingID   PRESENCE        optional            }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress     PRESENCE    optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                      CRITICALITY     ignore      EXTENSION   TnlQos      PRESENCE       optional },
    ...
}

USCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-DeleteItem-RL-ReconfPrepTDD

USCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                         USCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationPrepareTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD                  CRITICALITY ignore  EXTENSION PrimaryCCPCH-RSCP       PRESENCE optional }|
```

```
    { ID id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD              CRITICALITY ignore  EXTENSION DL-TimeSlot-ISCP-Info    PRESENCE optional }|
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD   CRITICALITY ignore  EXTENSION DL-TimeSlot-ISCP-LCR-Information PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information                              CRITICALITY reject  EXTENSION HSDSCH-TDD-Information  PRESENCE optional}|
    { ID id-HSDSCH-Information-to-Modify                        CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify     PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Add             CRITICALITY reject      EXTENSION HSDSCH-MACdFlows-Information        PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Delete          CRITICALITY reject      EXTENSION HSDSCH-MACdFlows-to-Delete          PRESENCE optional}|
    { ID id-HSPDSCH-RL-ID                       CRITICALITY reject      EXTENSION RL-ID                               PRESENCE optional}|
    { ID id-PDSCH-RL-ID                         CRITICALITY ignore      EXTENSION RL-ID                               PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR   CRITICALITY ignore      EXTENSION UL-Synchronisation-Parameters-LCR   PRESENCE optional }|
-- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-RL-Information-RL-ReconfPrepTDD     CRITICALITY ignore      EXTENSION RL-Information-RL-ReconfPrepTDD     PRESENCE optional }|
    { ID id-PrimaryCCPCH-RSCP-Delta             CRITICALITY ignore      EXTENSION PrimaryCCPCH-RSCP-Delta             PRESENCE optional }|
    { ID id-E-DCH-Information-Reconfig          CRITICALITY reject      EXTENSION E-DCH-Information-Reconfig          PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID                 CRITICALITY reject      EXTENSION RL-ID                               PRESENCE optional }|
    { ID id-E-DCH-768-Information-Reconfig      CRITICALITY reject      EXTENSION E-DCH-768-Information-Reconfig      PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Reconfig      CRITICALITY reject      EXTENSION E-DCH-LCR-Information-Reconfig      PRESENCE optional }|
    { ID id-NeedforIdleInterval                 CRITICALITY ignore      EXTENSION   NeedforIdleInterval               PRESENCE optional }|
    { ID id-CPC-InformationLCR                  CRITICALITY reject      EXTENSION CPC-InformationLCR                  PRESENCE optional }|
    { ID id-RNTI-Allocation-Indicator           CRITICALITY ignore      EXTENSION  RNTI-Allocation-Indicator          PRESENCE optional }|
    { ID id-DCH-MeasurementType-Indicator       CRITICALITY reject      EXTENSION DCH-MeasurementType-Indicator       PRESENCE optional},
    ...
}


RL-Information-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF RL-InformationIE-RL-ReconfPrepTDD

RL-InformationIE-RL-ReconfPrepTDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    rL-Specific-DCH-Info                RL-Specific-DCH-Info            OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationIE-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationIE-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION READY FDD
--
-- **************************************************************

RadioLinkReconfigurationReadyFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationReadyFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationReadyFDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-ReconfReadyFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfReadyFDD    PRESENCE
optional    } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
```

```
}

RL-InformationResponseList-RL-ReconfReadyFDD        ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-
RL-ReconfReadyFDD-IEs} }

RL-InformationResponse-RL-ReconfReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfReadyFDD    CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfReadyFDD    PRESENCE
mandatory   }
}

RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    max-UL-SIR                          UL-SIR                                                                                  OPTIONAL,
    min-UL-SIR                          UL-SIR                                                                                  OPTIONAL,
    maximumDLTxPower                    DL-Power                                                                                OPTIONAL,
    minimumDLTxPower                    DL-Power                                                                                OPTIONAL,
    not-Used-secondary-CCPCH-Info       NULL                                                                                    OPTIONAL,
    dl-CodeInformationList              DL-CodeInformationList-RL-ReconfReadyFDD                                                OPTIONAL,
    dCHInformationResponse              DCH-InformationResponseList-RL-ReconfReadyFDD                                           OPTIONAL,
    not-Used-dSCHsToBeAddedOrModified   NULL                                                                                    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator          CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator          PRESENCE optional
}|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation  CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation  PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information-Change          CRITICALITY ignore  EXTENSION Secondary-CPICH-Information-Change          PRESENCE
optional }|
    { ID id-EDCH-FDD-InformationResponse                CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse                PRESENCE optional
}|
    { ID id-EDCH-RLSet-Id                               CRITICALITY ignore  EXTENSION RL-Set-ID                                   PRESENCE
optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation       CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation       PRESENCE
optional }|
    { ID id-F-DPCH-SlotFormat                           CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                           PRESENCE optional
}|
    { ID id-HSDSCH-PreconfigurationInfo                 CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationInfo                 PRESENCE optional
}|
    { ID id-Non-Serving-RL-Preconfig-Info               CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Info               PRESENCE optional
},
...
}

DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}

DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE mandatory }
}

DCH-InformationResponseList-RL-ReconfReadyFDD               ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyFDD} }
```

```
DCH-InformationResponseListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse     CRITICALITY ignore  TYPE DCH-InformationResponse        PRESENCE mandatory }
}

RadioLinkReconfigurationReadyFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                          CRITICALITY ignore      EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                CRITICALITY ignore      EXTENSION MAChs-ResetIndicator                 PRESENCE optional }|
    { ID id-Fast-Reconfiguration-Permission     CRITICALITY ignore      EXTENSION Fast-Reconfiguration-Permission     PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response        CRITICALITY ignore    EXTENSION Continuous-Packet-Connectivity-
HS-SCCH-Less-Information-Response       PRESENCE optional }|
    { ID id-Additional-HS-Cell-RL-Reconf-Response   CRITICALITY ignore      EXTENSION Additional-HS-Cell-RL-Reconf-Response    PRESENCE optional }|
    { ID id-Additional-EDCH-Cell-Information-ResponseRLReconf       CRITICALITY ignore  EXTENSION Additional-EDCH-Cell-Information-Response-
RLReconf-List           PRESENCE optional },
    ...
}


Additional-HS-Cell-RL-Reconf-Response   ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Additional-HS-Cell-RL-Reconf-Response-ItemIEs

Additional-HS-Cell-RL-Reconf-Response-ItemIEs   ::=SEQUENCE{
    hSPDSCH-RL-ID                                       RL-ID,
    hSDSCH-RNTI                                         HSDSCH-RNTI,
    hS-DSCH-FDD-Secondary-Serving-Information-Response  HS-DSCH-FDD-Secondary-Serving-Information-Response,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-HS-Cell-RL-Reconf-Response-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-HS-Cell-RL-Reconf-Response-ItemIEs-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION READY TDD
--
-- **************************************************************

RadioLinkReconfigurationReadyTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationReadyTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationReadyTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationReadyTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfReadyTDD
                        CRITICALITY ignore  TYPE RL-InformationResponse-RL-ReconfReadyTDD   PRESENCE optional   } |
    --This RL-InformationResponse-RL-ReconfReadyTDD is for the first RL repetition in the list.
    --Repetitions 2 and on are defined in Multiple-RL-InformationResponse-RL-ReconfReadyTDD.
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE {
```

```
    rL-ID                           RL-ID,
    max-UL-SIR                      UL-SIR          OPTIONAL,
    min-UL-SIR                      UL-SIR          OPTIONAL,
    maximumDLTxPower                DL-Power        OPTIONAL,
    minimumDLTxPower                DL-Power        OPTIONAL,
    secondary-CCPCH-Info-TDD        Secondary-CCPCH-Info-TDD    OPTIONAL,
    ul-CCTrCH-Information           UL-CCTrCH-InformationList-RL-ReconfReadyTDD     OPTIONAL,
    dl-CCTrCH-Information           DL-CCTrCH-InformationList-RL-ReconfReadyTDD OPTIONAL,
    dCHInformationResponse          DCH-InformationResponseList-RL-ReconfReadyTDD   OPTIONAL,
    dSCHsToBeAddedOrModified        DSCHToBeAddedOrModified-RL-ReconfReadyTDD   OPTIONAL,
    uSCHsToBeAddedOrModified        USCHToBeAddedOrModified-RL-ReconfReadyTDD   OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs} }  OPTIONAL,
    ...
}

RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-TimingAdvanceCtrl-LCR                        CRITICALITY ignore  EXTENSION UL-TimingAdvanceCtrl-LCR          PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-secondary-LCR-CCPCH-Info-TDD                    CRITICALITY ignore  EXTENSION Secondary-LCR-CCPCH-Info-TDD      PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-secondary-CCPCH-Info-RL-ReconfReadyTDD768       CRITICALITY ignore  EXTENSION Secondary-CCPCH-Info-TDD768       PRESENCE optional }|
    { ID id-UARFCNforNt                                     CRITICALITY ignore  EXTENSION UARFCN                            PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationList-RL-ReconfReadyTDD         ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}

UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-ReconfReadyTDD    PRESENCE
mandatory }
}

UL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfReadyTDD

UL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    ul-DPCH-AddInformation          UL-DPCH-InformationAddList-RL-ReconfReadyTDD            OPTIONAL,
    --For 3.84Mcps TDD only
    ul-DPCH-ModifyInformation       UL-DPCH-InformationModifyList-RL-ReconfReadyTDD             OPTIONAL,
    ul-DPCH-DeleteInformation       UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD             OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD      CRITICALITY ignore      EXTENSION UL-DPCH-LCR-InformationAddList-RL-
ReconfReadyTDD      PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768       CRITICALITY ignore      EXTENSION UL-DPCH-InformationAddList-RL-
ReconfReadyTDD768       PRESENCE optional },
    --For 7.68Mcps TDD only
    ...
}
```

```
UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-TimeslotLCR-Info             UL-TimeslotLCR-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}

UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD   CRITICALITY ignore TYPE UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD     PRESENCE
optional }
}

UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    rxTimingDeviationForTA          RxTimingDeviationForTA          OPTIONAL,
    uL-Timeslot-Information         UL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RxTimingDeviationForTAext       CRITICALITY ignore      EXTENSION RxTimingDeviationForTAext    PRESENCE optional },
    ...
}

UL-DPCH-InformationAddList-RL-ReconfReadyTDD768 ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    rxTimingDeviationForTA768           RxTimingDeviationForTA768           OPTIONAL,
    uL-Timeslot-Information768          UL-Timeslot-Information768,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationAddItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationAddItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}

UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD
    PRESENCE mandatory }
}

UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod            OPTIONAL,
    repetitionLength                RepetitionLength            OPTIONAL,
    tDD-DPCHOffset                  TDD-DPCHOffset              OPTIONAL,
    uL-Timeslot-InformationModifyList-RL-ReconfReadyTDD         UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD      OPTIONAL,
    --For 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD   CRITICALITY ignore    EXTENSION  UL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD      PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768   CRITICALITY ignore EXTENSION  UL-Timeslot-InformationModifyList-RL-
ReconfReadyTDD768       PRESENCE optional },
    --For 7.68Mcps TDD only
...
}

UL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD

UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    midambleShiftLCR                MidambleShiftLCR            OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL,
    tDD-uL-Code-LCR-Information         TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD

TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD   CRITICALITY    reject   EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR
PRESENCE  optional},
    ...
}

UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD

UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType           OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL,
    uL-Code-Information         TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD

TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768

UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768 ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768            OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL,
    uL-Code-Information768          TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD768      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD768::= SEQUENCE ( SIZE (1..maxNrOfDPCHs768)) OF TDD-UL-Code-InformationModifyItem-RL-
ReconfReadyTDD768

TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD768 ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode768       TDD-ChannelisationCode768       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}
```

```
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}

UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD
    PRESENCE mandatory }
}

UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD

UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                     DPCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-ReconfReadyTDD         ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}

DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-ReconfReadyTDD    PRESENCE
mandatory }
}

DL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfReadyTDD

DL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-AddInformation          DL-DPCH-InformationAddList-RL-ReconfReadyTDD            OPTIONAL,
    --For 3.84Mcps TDD only
    dl-DPCH-ModifyInformation       DL-DPCH-InformationModifyList-RL-ReconfReadyTDD         OPTIONAL,
    dl-DPCH-DeleteInformation       DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD   CRITICALITY ignore         EXTENSION    DL-DPCH-LCR-InformationAddList-RL-
ReconfReadyTDD      PRESENCE  optional}|
    --For 1.28Mcps TDD only
    { ID id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD               CRITICALITY ignore      EXTENSION DL-Power                      PRESENCE optional
    }|
    -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only, this is a DCH type CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD               CRITICALITY ignore      EXTENSION DL-Power                      PRESENCE optional
    }|
    -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only, this is a DCH type CCTrCH power
```

```
    { ID id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768       CRITICALITY ignore      EXTENSION DL-DPCH-InformationAddList-RL-
ReconfReadyTDD768                       PRESENCE  optional}|
    --For 7.68Mcps TDD only
    { ID id-DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD      CRITICALITY ignore      EXTENSION DL-DPCH-InformationDeleteList768-RL-
ReconfReadyTDD      PRESENCE optional},
    ...
}

DL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-TimeslotLCR-Info             DL-TimeslotLCR-Information,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}

DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD   CRITICALITY ignore TYPE DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD     PRESENCE
mandatory }
}

DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information         DL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationAddList-RL-ReconfReadyTDD768 ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information768      DL-Timeslot-Information768,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationAddItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}

DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD
    PRESENCE mandatory }
}

DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod            OPTIONAL,
    repetitionLength                RepetitionLength            OPTIONAL,
    tDD-DPCHOffset                  TDD-DPCHOffset              OPTIONAL,
    dL-Timeslot-InformationModifyList-RL-ReconfReadyTDD         DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD      OPTIONAL,
    --For 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD   CRITICALITY ignore    EXTENSION  DL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD      PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768   CRITICALITY ignore EXTENSION  DL-Timeslot-InformationModifyList-RL-
ReconfReadyTDD768       PRESENCE optional },
    --For 7.68Mcps TDD only
    ...
}

DL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD

DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    midambleShiftLCR                MidambleShiftLCR            OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL,
    tDD-dL-Code-LCR-Information     TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD

TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCodeLCR       TDD-ChannelisationCodeLCR       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD      CRITICALITY reject       EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR
    PRESENCE optional},
    ...
}
```

```
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD   CRITICALITY ignore   EXTENSION   DL-Power    PRESENCE optional }|
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD   CRITICALITY ignore   EXTENSION   DL-Power    PRESENCE optional },
    ...
}

DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD

DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType       MidambleShiftAndBurstType           OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL,
    dL-Code-Information             TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD

TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD   CRITICALITY    reject   EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR
PRESENCE  optional},
    -- This IE shall not be used
    ...
}

DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768

DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768 ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768            OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL,
    dL-Code-Information768          TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD768       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD768::= SEQUENCE ( SIZE (1..maxNrOfDPCHs768)) OF TDD-DL-Code-InformationModifyItem-RL-
ReconfReadyTDD768

TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD768 ::= SEQUENCE {
    dPCH-ID768                      DPCH-ID768,
    tDD-ChannelisationCode768       TDD-ChannelisationCode768       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}

DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD
    PRESENCE mandatory }
}

DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD

DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                     DPCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs768)) OF DL-DPCH-InformationDeleteItem768-RL-ReconfReadyTDD

DL-DPCH-InformationDeleteItem768-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID768                      DPCH-ID768,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-ReconfReadyTDD               ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyTDD} }

DCH-InformationResponseListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse     CRITICALITY ignore  TYPE DCH-InformationResponse        PRESENCE mandatory }
}

DSCHToBeAddedOrModified-RL-ReconfReadyTDD           ::= ProtocolIE-Single-Container { {DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD} }

DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD   PRESENCE
mandatory   }
}

DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfDSCHs)) OF DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD

DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    transportFormatManagement   TransportFormatManagement,
    dSCH-FlowControlInformation DSCH-FlowControlInformation,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCHToBeAddedOrModified-RL-ReconfReadyTDD           ::= ProtocolIE-Single-Container { {USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD}
}USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD   PRESENCE
mandatory   }
}

USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfUSCHs)) OF USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD

USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
    uSCH-ID                 USCH-ID,
    transportFormatManagement   TransportFormatManagement,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationReadyTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                         CRITICALITY ignore      EXTENSION HSDSCH-RNTI                         PRESENCE optional }|
    { ID id-DSCH-RNTI                           CRITICALITY ignore      EXTENSION DSCH-RNTI                           PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response     PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                CRITICALITY ignore      EXTENSION MAChs-ResetIndicator                PRESENCE optional }|
    { ID id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD   CRITICALITY ignore      EXTENSION    Multiple-RL-InformationResponse-RL-
ReconfReadyTDD      PRESENCE    optional}|
-- This is for RL repetitions 2 and on in RL list.
    { ID id-E-DCH-Information-Response           CRITICALITY ignore      EXTENSION E-DCH-Information-Response           PRESENCE optional }|
    { ID id-E-DCH-768-Information-Response       CRITICALITY ignore      EXTENSION E-DCH-768-Information-Response       PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Response       CRITICALITY ignore      EXTENSION E-DCH-LCR-Information-Response       PRESENCE optional }|
    { ID id-PowerControlGAP                      CRITICALITY ignore      EXTENSION ControlGAP                          PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
```

```
    { ID id-IdleIntervalInformation             CRITICALITY ignore      EXTENSION   IdleIntervalInformation           PRESENCE optional }|
    { ID id-ContinuousPacketConnectivity-DRX-Information-ResponseLCR    CRITICALITY ignore  EXTENSION ContinuousPacketConnectivity-DRX-Information-
ResponseLCR         PRESENCE optional   }|
    { ID id-HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR   CRITICALITY ignore  EXTENSION HS-DSCH-Semi-PersistentScheduling-
Information-ResponseLCR         PRESENCE optional}|
    { ID id-E-DCH-Semi-PersistentScheduling-Information-ResponseLCR     CRITICALITY ignore  EXTENSION E-DCH-Semi-PersistentScheduling-Information-
ResponseLCR         PRESENCE optional}|
    { ID id-E-RNTI-For-FACH                     CRITICALITY ignore      EXTENSION E-RNTI                                PRESENCE optional }|
    { ID id-H-RNTI-For-FACH                     CRITICALITY ignore      EXTENSION HSDSCH-RNTI                           PRESENCE optional }|
    { ID id-DCH-MeasurementOccasion-Information     CRITICALITY reject  EXTENSION DCH-MeasurementOccasion-Information PRESENCE optional },
    ...
}

Multiple-RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-InformationResponse-RL-ReconfReadyTDD


-- **************************************************************
--
-- RADIO LINK RECONFIGURATION COMMIT
--
-- **************************************************************

RadioLinkReconfigurationCommit ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationCommit-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationCommit-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CFN                 CRITICALITY ignore  TYPE CFN                    PRESENCE mandatory   }|
    { ID id-Active-Pattern-Sequence-Information     CRITICALITY ignore  TYPE Active-Pattern-Sequence-Information    PRESENCE optional  },--FDD only
    ...
}

RadioLinkReconfigurationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Fast-Reconfiguration-Mode   CRITICALITY reject  EXTENSION Fast-Reconfiguration-Mode   PRESENCE optional },--FDD only
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION FAILURE
--
-- **************************************************************

RadioLinkReconfigurationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-ReconfFailure     CRITICALITY ignore  TYPE CauseLevel-RL-ReconfFailure  PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
```

```
    ...
}

CauseLevel-RL-ReconfFailure ::= CHOICE {
    generalCause        GeneralCauseList-RL-ReconfFailure,
    rLSpecificCause     RLSpecificCauseList-RL-ReconfFailure,
    ...
}

GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }        OPTIONAL,
    ...
 }

GeneralCauseItem-RL-ReconfFailure-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
    rL-ReconfigurationFailureList-RL-ReconfFailure      RL-ReconfigurationFailureList-RL-ReconfFailure    OPTIONAL,
    iE-Extensions                                       ProtocolExtensionContainer { { RLSpecificCauseItem-RL-ReconfFailure-ExtIEs} }
    OPTIONAL,
    ...
 }

RLSpecificCauseItem-RL-ReconfFailure-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-ReconfigurationFailureList-RL-ReconfFailure ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-ReconfigurationFailure-RL-
ReconfFailure-IEs} }

RL-ReconfigurationFailure-RL-ReconfFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailure-RL-ReconfFail CRITICALITY ignore  TYPE RL-ReconfigurationFailure-RL-ReconfFail  PRESENCE mandatory   }
}

RL-ReconfigurationFailure-RL-ReconfFail ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { {RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs} } OPTIONAL,
    ...
}

RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Max-UE-DTX-Cycle        CRITICALITY ignore      EXTENSION Max-UE-DTX-Cycle            PRESENCE conditional },
    -- This IE shall be present if the Cause IE is set to "Continuous Packet Connectivity UE DTX Cycle not Available".
    ...
}

RadioLinkReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- RADIO LINK RECONFIGURATION CANCEL
--
-- **************************************************************

RadioLinkReconfigurationCancel ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationCancel-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkReconfigurationCancel-IEs RNSAP-PROTOCOL-IES ::= {
    ...
}

RadioLinkReconfigurationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- **************************************************************

RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime                              CRITICALITY reject  TYPE AllowedQueuingTime                              PRESENCE optional
    } |
    { ID id-UL-DPCH-Information-RL-ReconfRqstFDD            CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfRqstFDD            PRESENCE optional
    } |
    { ID id-DL-DPCH-Information-RL-ReconfRqstFDD            CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfRqstFDD            PRESENCE optional
    } |
    { ID id-FDD-DCHs-to-Modify                              CRITICALITY reject  TYPE FDD-DCHs-to-Modify                              PRESENCE optional
    } |
    { ID id-DCHs-to-Add-FDD                                 CRITICALITY reject  TYPE DCH-FDD-Information                             PRESENCE optional
    } |
    { ID id-DCH-DeleteList-RL-ReconfRqstFDD                 CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstFDD                 PRESENCE optional
    } |
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information  PRESENCE optional
},
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPDCHIndicatorEDCH   CRITICALITY reject      EXTENSION UL-DPDCHIndicatorEDCH     PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    tFCI-SignallingMode             TFCI-SignallingMode OPTIONAL,
    limitedPowerIncrease            LimitedPowerIncrease    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstFDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD

DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-InformationList CRITICALITY ignore  EXTENSION RL-ReconfigurationRequestFDD-RL-InformationList
    PRESENCE    optional}|
    { ID id-DL-ReferencePowerInformation                    CRITICALITY ignore  EXTENSION DL-ReferencePowerInformation         PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                  CRITICALITY reject  EXTENSION HSDSCH-FDD-Information                 PRESENCE optional}|
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject      EXTENSION HSDSCH-Information-to-Modify-UnsynchronisedPRESENCE
optional}|
    { ID id-HSDSCH-MACdFlows-to-Add                 CRITICALITY reject      EXTENSION HSDSCH-MACdFlows-Information       PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Delete              CRITICALITY reject      EXTENSION HSDSCH-MACdFlows-to-Delete         PRESENCE optional}|
    { ID id-HSPDSCH-RL-ID                           CRITICALITY reject      EXTENSION RL-ID                              PRESENCE optional}|
    { ID id-EDPCH-Information-RLReconfRequest-FDD   CRITICALITY reject      EXTENSION EDPCH-Information-RLReconfRequest-FDD    PRESENCE optional}|
    { ID id-EDCH-FDD-Information                    CRITICALITY reject      EXTENSION EDCH-FDD-Information               PRESENCE optional}|
    { ID id-EDCH-FDD-Information-To-Modify          CRITICALITY reject      EXTENSION EDCH-FDD-Information-To-Modify     PRESENCE optional}|
    { ID id-EDCH-MACdFlows-To-Add                   CRITICALITY reject      EXTENSION EDCH-MACdFlows-Information         PRESENCE optional}|
    { ID id-EDCH-MACdFlows-To-Delete                CRITICALITY reject      EXTENSION EDCH-MACdFlows-To-Delete           PRESENCE optional}|
    { ID id-Serving-EDCHRL-Id                       CRITICALITY reject      EXTENSION EDCH-Serving-RL                    PRESENCE optional}|
    { ID id-CPC-Information                         CRITICALITY reject      EXTENSION CPC-Information                    PRESENCE optional}|
    { ID id-NoOfTargetCellHS-SCCH-Order             CRITICALITY ignore      EXTENSION NoOfTargetCellHS-SCCH-Order        PRESENCE optional}|
    { ID id-Additional-HS-Cell-Information-RL-Reconf-Req    CRITICALITY reject      EXTENSION Additional-HS-Cell-Information-RL-Reconf-Req
    PRESENCE optional}|
    { ID id-UE-AggregateMaximumBitRate              CRITICALITY ignore      EXTENSION UE-AggregateMaximumBitRate         PRESENCE optional }|
    { ID id-Additional-EDCH-Cell-Information-RL-Reconf-Req  CRITICALITY reject  EXTENSION Additional-EDCH-Cell-Information-RL-Reconf-Req   PRESENCE
optional },
```

```
    ...
}

Additional-HS-Cell-Information-RL-Reconf-Req    ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Additional-HS-Cell-Information-RL-Reconf-Req-ItemIEs

Additional-HS-Cell-Information-RL-Reconf-Req-ItemIEs    ::=SEQUENCE{
    hSPDSCH-RL-ID                                   RL-ID,
    c-ID                                            C-ID                                                OPTIONAL,
    hS-DSCH-FDD-Secondary-Serving-Information       HS-DSCH-FDD-Secondary-Serving-Information   OPTIONAL,
    hS-DSCH-FDD-Secondary-Serving-Information-To-Modify-Unsynchronised      HS-DSCH-FDD-Secondary-Serving-Information-To-Modify-Unsynchronised
    OPTIONAL,
    hS-DSCH-Secondary-Serving-Remove                HS-DSCH-Secondary-Serving-Remove    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-HS-Cell-Information-RL-Reconf-Req-ExtIEs} } OPTIONAL,
    ...
}

Additional-HS-Cell-Information-RL-Reconf-Req-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-RL-Reconf-Req  ::=SEQUENCE{
    setup-Or-ConfigurationChange-Or-Removal-Of-EDCH-On-secondary-UL-Frequency       Setup-Or-ConfigurationChange-Or-Removal-Of-EDCH-On-secondary-
UL-Frequency,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-Cell-Information-RL-Reconf-Req-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-Cell-Information-RL-Reconf-Req-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-ReconfigurationRequestFDD-RL-InformationList ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    {RL-ReconfigurationRequestFDD-RL-Information-ListItem} }

RL-ReconfigurationRequestFDD-RL-Information-ListItem RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-Information-IEs CRITICALITY ignore  TYPE RL-ReconfigurationRequestFDD-RL-Information-IEs PRESENCE
optional    }
}

RL-ReconfigurationRequestFDD-RL-Information-IEs ::= SEQUENCE {
    rL-ID                   RL-ID,
    rL-Specific-DCH-Info    RL-Specific-DCH-Info OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-ReconfigurationRequestFDD-RL-Information-ExtIEs} } OPTIONAL,
    ...
}

RL-ReconfigurationRequestFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-Specific-EDCH-Information        CRITICALITY reject  EXTENSION RL-Specific-EDCH-Information      PRESENCE optional }|
    { ID id-EDCH-RL-Indication                  CRITICALITY reject  EXTENSION EDCH-RL-Indication                PRESENCE optional }|
    { ID id-HSDSCH-PreconfigurationSetup        CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationSetup      PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Setup      CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Setup    PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Removal    CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Setup    PRESENCE optional },
    ...
}
```

```
-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- **************************************************************

RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional   } |
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD  PRESENCE
optional    } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD  PRESENCE
optional    } |
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD  PRESENCE
optional    } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD  PRESENCE
optional    } |
    { ID id-TDD-DCHs-to-Modify      CRITICALITY reject  TYPE TDD-DCHs-to-Modify     PRESENCE optional   } |
    { ID id-DCHs-to-Add-TDD     CRITICALITY reject  TYPE DCH-TDD-Information        PRESENCE optional   } |
    { ID id-DCH-DeleteList-RL-ReconfRqstTDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstTDD     PRESENCE optional },
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }

UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD  PRESENCE
mandatory   }
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-UL-SIRTarget      CRITICALITY reject      EXTENSION       UL-SIR      PRESENCE   optional   },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD  PRESENCE
mandatory   }
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD  PRESENCE
mandatory   }
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }

DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD  PRESENCE
mandatory   }
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstTDD             ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD

DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
```

```
    dCH-ID                      DCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  { ID id-RL-ReconfigurationRequestTDD-RL-Information   CRITICALITY ignore  EXTENSION   Multiple-RL-ReconfigurationRequestTDD-RL-Information
    PRESENCE    optional}|
    { ID id-HSDSCH-TDD-Information              CRITICALITY reject      EXTENSION HSDSCH-TDD-Information              PRESENCE optional}|
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject      EXTENSION HSDSCH-Information-to-Modify-UnsynchronisedPRESENCE
optional}|
    { ID id-HSDSCH-MACdFlows-to-Add             CRITICALITY reject      EXTENSION HSDSCH-MACdFlows-Information        PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Delete          CRITICALITY reject      EXTENSION HSDSCH-MACdFlows-to-Delete          PRESENCE optional}|
    { ID id-HSPDSCH-RL-ID                       CRITICALITY reject      EXTENSION RL-ID                               PRESENCE optional}|
    { ID id-E-DCH-Information-Reconfig          CRITICALITY reject      EXTENSION E-DCH-Information-Reconfig          PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID                 CRITICALITY reject      EXTENSION RL-ID                               PRESENCE optional }|
    { ID id-E-DCH-768-Information-Reconfig      CRITICALITY reject      EXTENSION E-DCH-768-Information-Reconfig      PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Reconfig      CRITICALITY reject      EXTENSION E-DCH-LCR-Information-Reconfig      PRESENCE optional }|
    { ID id-CPC-InformationLCR                  CRITICALITY reject      EXTENSION CPC-InformationLCR                  PRESENCE optional }|
    { ID id-RNTI-Allocation-Indicator           CRITICALITY ignore      EXTENSION  RNTI-Allocation-Indicator          PRESENCE optional }|
    { ID id-DCH-MeasurementType-Indicator       CRITICALITY reject      EXTENSION DCH-MeasurementType-Indicator       PRESENCE optional},
    ...
}

Multiple-RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF RL-ReconfigurationRequestTDD-RL-Information

RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE {
    rL-ID                   RL-ID,
    rL-Specific-DCH-Info    RL-Specific-DCH-Info OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-ReconfigurationRequestTDD-RL-Information-ExtIEs} } OPTIONAL,
    ...
}

RL-ReconfigurationRequestTDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID    id-UL-Synchronisation-Parameters-LCR            CRITICALITY ignore      EXTENSION   UL-Synchronisation-Parameters-LCR    PRESENCE
    optional    }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-NeedforIdleInterval                         CRITICALITY ignore  EXTENSION   NeedforIdleInterval           PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION RESPONSE FDD
--
-- **************************************************************

RadioLinkReconfigurationResponseFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationResponseFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationResponseFDD-Extensions}}                   OPTIONAL,
    ...
```

```
}

RadioLinkReconfigurationResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-ReconfRspFDD      CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfRspFDD      PRESENCE
optional    } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-ReconfRspFDD      ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-RL-
ReconfRspFDD-IEs} }

RL-InformationResponse-RL-ReconfRspFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfRspFDD      CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfRspFDD   PRESENCE
mandatory   }
}

RL-InformationResponseItem-RL-ReconfRspFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    max-UL-SIR                      UL-SIR          OPTIONAL,
    min-UL-SIR                      UL-SIR          OPTIONAL,
    maximumDLTxPower                DL-Power        OPTIONAL,
    minimumDLTxPower                DL-Power        OPTIONAL,
    not-Used-secondary-CCPCH-Info           NULL        OPTIONAL,
    dCHsInformationResponseList     DCH-InformationResponseList-RL-ReconfRspFDD OPTIONAL,
    dL-CodeInformationList-RL-ReconfResp    DL-CodeInformationList-RL-ReconfRspFDD  OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator      CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator        PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse            CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse              PRESENCE optional }|
    { ID id-EDCH-RLSet-Id                           CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation   CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation     PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                       CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                         PRESENCE optional }|
    { ID id-HSDSCH-PreconfigurationInfo             CRITICALITY ignore  EXTENSION HSDSCH-PreconfigurationInfo               PRESENCE optional }|
    { ID id-Non-Serving-RL-Preconfig-Info           CRITICALITY ignore  EXTENSION Non-Serving-RL-Preconfig-Info             PRESENCE optional },
    ...
}

DCH-InformationResponseList-RL-ReconfRspFDD             ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspFDD} }

DCH-InformationResponseListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse     CRITICALITY ignore  TYPE DCH-InformationResponse        PRESENCE mandatory  }
}

DL-CodeInformationList-RL-ReconfRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfRspFDD }}

DL-CodeInformationListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE optional }
}

RadioLinkReconfigurationResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-HSDSCH-RNTI                          CRITICALITY ignore      EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response      CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response      PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                 CRITICALITY ignore      EXTENSION MAChs-ResetIndicator                 PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response               CRITICALITY ignore     EXTENSION Continuous-Packet-
Connectivity-HS-SCCH-Less-Information-Response                      PRESENCE optional }|
    { ID id-Additional-HS-Cell-Information-Response CRITICALITY ignore      EXTENSION Additional-HS-Cell-Information-Response-List   PRESENCE
optional }|
    { ID id-Additional-EDCH-Cell-Information-ResponseRLReconf       CRITICALITY ignore  EXTENSION Additional-EDCH-Cell-Information-Response-
RLReconf-List           PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION RESPONSE TDD
--
-- **************************************************************

RadioLinkReconfigurationResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationResponseTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkReconfigurationResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfRspTDD      CRITICALITY ignore  TYPE RL-InformationResponse-RL-ReconfRspTDD        PRESENCE optional }
|
    --This RL-InformationResponse-RL-ReconfRspTDD is for the first RL repetition in the list.
    --Repetitions 2 and on are defined in Multiple-RL-InformationResponse-RL-ReconfRspTDD.
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    max-UL-SIR                      UL-SIR          OPTIONAL,
    min-UL-SIR                      UL-SIR          OPTIONAL,
    maximumDLTxPower                DL-Power        OPTIONAL,
    minimumDLTxPower                DL-Power        OPTIONAL,
    dCHsInformationResponseList     DCH-InformationResponseList-RL-ReconfRspTDD OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfRspTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-CCTrCH-InformationList-RL-ReconfRspTDD   CRITICALITY ignore  EXTENSION DL-CCTrCH-InformationList-RL-ReconfRspTDD   PRESENCE optional
}|
    { ID id-UL-TimingAdvanceCtrl-LCR                    CRITICALITY ignore  EXTENSION UL-TimingAdvanceCtrl-LCR     PRESENCE optional },
    --For 1.28Mcps TDD only
    ...
}

DL-CCTrCH-InformationList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfRspTDD
```

```
DL-CCTrCH-InformationItem-RL-ReconfRspTDD ::= SEQUENCE {
    cCTrCH-ID                                CCTrCH-ID,
    dl-DPCH-ModifyInformation-LCR            DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD      OPTIONAL,
    --For 1.28Mcps TDD only
    cCTrCH-Maximum-DL-Power                  DL-Power               OPTIONAL,
    --For 3.84Mcps TDD and 7.68Mcps TDD only, this is a DCH type CCTrCH power
    cCTrCH-Minimum-DL-Power                  DL-Power               OPTIONAL,
    --For 3.84Mcps TDD and 7.68Mcps TDD only, this is a DCH type CCTrCH power
    iE-Extensions                            ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD  ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD }}

DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    {ID id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD   CRITICALITY ignore   TYPE  DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD
    PRESENCE optional },
    ...
}

DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD  ::= SEQUENCE {
   dL-Timeslot-LCR-InformationModifyList-RL-ReconfRqstTDD       DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD       OPTIONAL,
   iE-ExtensionsProtocolExtensionContainer { { DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs} }            OPTIONAL,
    ...
}

DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-Timeslot-LCR-InformationModifyItem-RL-
ReconfRspTDD

DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD    ::= SEQUENCE {
    timeSlotLCR                          TimeSlotLCR,
    maxPowerLCR                          DL-Power    OPTIONAL,
    minPowerLCR                          DL-Power    OPTIONAL,
    iE-Extensions                        ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-ReconfRspTDD            ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspTDD} }

DCH-InformationResponseListIEs-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse CRITICALITY ignore  TYPE DCH-InformationResponse    PRESENCE optional  }
```

```
}

RadioLinkReconfigurationResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                          CRITICALITY ignore      EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information-Response      CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response      PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                 CRITICALITY ignore      EXTENSION MAChs-ResetIndicator                 PRESENCE optional }|
    { ID id-RL-ReconfigurationResponseTDD-RL-Information    CRITICALITY ignore      EXTENSION   Multiple-RL-InformationResponse-RL-ReconfRspTDD
    PRESENCE    optional}|
    { ID id-E-DCH-Information-Response           CRITICALITY ignore      EXTENSION E-DCH-Information-Response           PRESENCE optional }|
    { ID id-E-DCH-768-Information-Response       CRITICALITY ignore      EXTENSION E-DCH-768-Information-Response       PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Response       CRITICALITY ignore      EXTENSION E-DCH-LCR-Information-Response       PRESENCE optional }|
    { ID id-PowerControlGAP                      CRITICALITY ignore      EXTENSION ControlGAP                           PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-IdleIntervalInformation              CRITICALITY ignore      EXTENSION   IdleIntervalInformation                PRESENCE optional }|
    { ID id-ContinuousPacketConnectivity-DRX-Information-ResponseLCR    CRITICALITY ignore  EXTENSION ContinuousPacketConnectivity-DRX-Information-
ResponseLCR         PRESENCE optional   }|
    { ID id-HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR   CRITICALITY ignore  EXTENSION HS-DSCH-Semi-PersistentScheduling-
Information-ResponseLCR         PRESENCE optional}|
    { ID id-E-DCH-Semi-PersistentScheduling-Information-ResponseLCR     CRITICALITY ignore      EXTENSION E-DCH-Semi-PersistentScheduling-
Information-ResponseLCR         PRESENCE optional}|
    { ID id-E-RNTI-For-FACH                      CRITICALITY ignore  EXTENSION E-RNTI                               PRESENCE optional }|
    { ID id-H-RNTI-For-FACH                      CRITICALITY ignore  EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-DCH-MeasurementOccasion-Information CRITICALITY reject  EXTENSION DCH-MeasurementOccasion-Information     PRESENCE optional },
    ...
}

Multiple-RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-InformationResponse-RL-ReconfRspTDD
--Includes the 2nd through the max number of radio link information repetitions.

-- **************************************************************
--
-- RADIO LINK FAILURE INDICATION
--
-- **************************************************************

RadioLinkFailureIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkFailureIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Reporting-Object-RL-FailureInd  CRITICALITY ignore  TYPE Reporting-Object-RL-FailureInd     PRESENCE mandatory   },
    ...
}

Reporting-Object-RL-FailureInd ::= CHOICE {
    rL                      RL-RL-FailureInd,
    rL-Set                  RL-Set-RL-FailureInd, --FDD only
    ...,
    cCTrCH                  CCTrCH-RL-FailureInd  --TDD only
}

RL-RL-FailureInd            ::= SEQUENCE {
```

```
    rL-InformationList-RL-FailureInd        RL-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RLItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-FailureInd            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-FailureInd-IEs}
}

RL-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-FailureInd        CRITICALITY ignore  TYPE RL-Information-RL-FailureInd     PRESENCE mandatory   }
}

RL-Information-RL-FailureInd ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-FailureInd            ::= SEQUENCE {
    rL-Set-InformationList-RL-FailureInd    RL-Set-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-FailureInd            ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
FailureInd-IEs} }

RL-Set-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-FailureInd        CRITICALITY ignore  TYPE RL-Set-Information-RL-FailureInd    PRESENCE mandatory   }
}

RL-Set-Information-RL-FailureInd ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RadioLinkFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-FailureInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cCTrCH-InformationList-RL-FailureInd    CCTrCH-InformationList-RL-FailureInd,
    iE-Extensions                       ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }     OPTIONAL,
    ...
 }

CCTrCHItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
FailureInd}}

CCTrCH-InformationItemIE-RL-FailureInd RNSAP-PROTOCOL-IES ::= {
    { ID    id-CCTrCH-InformationItem-RL-FailureInd        CRITICALITY     ignore          TYPE  CCTrCH-InformationItem-RL-FailureInd
    PRESENCE    mandatory}
 }

CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-FailureInd-ExtIEs } }    OPTIONAL,
    ...
 }

CCTrCH-InformationItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK PREEMPTION REQUIRED INDICATION
--
-- **************************************************************

RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkPreemptionRequiredIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkPreemptionRequiredIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationList-RL-PreemptRequiredInd    CRITICALITY ignore  TYPE RL-InformationList-RL-PreemptRequiredInd   PRESENCE optional },
    ...
}

RL-InformationList-RL-PreemptRequiredInd            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
PreemptRequiredInd} }
```

```
RL-InformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-PreemptRequiredInd        CRITICALITY ignore  TYPE RL-InformationItem-RL-PreemptRequiredInd     PRESENCE
mandatory   }
}

RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd  CRITICALITY ignore  EXTENSION EDCH-MacdFlowSpecificInformationList-RL-
PreemptRequiredInd PRESENCE optional },
    ...
}

RadioLinkPreemptionRequiredIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd  CRITICALITY ignore EXTENSION HSDSCHMacdFlowSpecificInformationList-RL-
PreemptRequiredInd PRESENCE optional },
    ...
}

HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd ::= SEQUENCE (SIZE (1.. maxNrOfMACdFlows)) OF ProtocolIE-Single-Container {
{HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd} }

HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    { ID id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd     CRITICALITY ignore  TYPE HSDSCHMacdFlowSpecificInformationItem-RL-
PreemptRequiredInd  PRESENCE mandatory  }
}

HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd ::= SEQUENCE {
    hSDSCH-MACdFlow-ID                      HSDSCH-MACdFlow-ID,
    iE-Extensions               ProtocolExtensionContainer { { HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
    ...
}

HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd  ::= SEQUENCE (SIZE (1.. maxNrOfEDCHMACdFlows)) OF ProtocolIE-Single-Container { {EDCH-
MacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd} }

EDCH-MacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    { ID id-EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd      CRITICALITY ignore  TYPE EDCH-MacdFlowSpecificInformationItem-RL-
PreemptRequiredInd  PRESENCE mandatory  }
}

EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd ::= SEQUENCE {
    eDCH-MACdFlow-ID            EDCH-MACdFlow-ID,
    iE-Extensions               ProtocolExtensionContainer { { EDCH-MacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
    ...
```

```
}

EDCH-MacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- RADIO LINK RESTORE INDICATION
--
-- **************************************************************

RadioLinkRestoreIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkRestoreIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkRestoreIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Reporing-Object-RL-RestoreInd   CRITICALITY ignore  TYPE Reporting-Object-RL-RestoreInd     PRESENCE mandatory   },
    ...
}

Reporting-Object-RL-RestoreInd ::= CHOICE {
    rL                      RL-RL-RestoreInd, --TDD only
    rL-Set                  RL-Set-RL-RestoreInd, --FDD only
    ...,
    cCTrCH                  CCTrCH-RL-RestoreInd  --TDD only
}

RL-RL-RestoreInd ::= SEQUENCE {
    rL-InformationList-RL-RestoreInd        RL-InformationList-RL-RestoreInd,
    iE-Extensions                           ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RLItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-RestoreInd            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-RestoreInd-IEs}
}

RL-Information-RL-RestoreInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-RestoreInd        CRITICALITY ignore  TYPE RL-Information-RL-RestoreInd     PRESENCE mandatory   }
}

RL-Information-RL-RestoreInd ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}
```

```
RL-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-RestoreInd ::= SEQUENCE {
    rL-Set-InformationList-RL-RestoreInd    RL-Set-InformationList-RL-RestoreInd,
    iE-Extensions                           ProtocolExtensionContainer { { RL-SetItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-RestoreInd            ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
RestoreInd-IEs} }

RL-Set-Information-RL-RestoreInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-RestoreInd        CRITICALITY ignore  TYPE RL-Set-Information-RL-RestoreInd    PRESENCE mandatory   }
}

RL-Set-Information-RL-RestoreInd ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkRestoreIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-RestoreInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cCTrCH-InformationList-RL-RestoreInd    CCTrCH-InformationList-RL-RestoreInd,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }     OPTIONAL,
    ...
 }

CCTrCHItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
RestoreInd}}

CCTrCH-InformationItemIE-RL-RestoreInd RNSAP-PROTOCOL-IES ::= {
    { ID    id-CCTrCH-InformationItem-RL-RestoreInd         CRITICALITY     ignore          TYPE  CCTrCH-InformationItem-RL-RestoreInd
    PRESENCE    mandatory}
 }
```

```
CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-RestoreInd-ExtIEs } }    OPTIONAL,
    ...
 }

CCTrCH-InformationItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DOWNLINK POWER CONTROL REQUEST
--
-- **************************************************************

DL-PowerControlRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DL-PowerControlRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}                  OPTIONAL,
    ...
}

DL-PowerControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-PowerAdjustmentType               CRITICALITY ignore          TYPE PowerAdjustmentType                              PRESENCE mandatory} |
    { ID id-DLReferencePower                  CRITICALITY ignore          TYPE DL-Power                                         PRESENCE conditional}
|
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    { ID id-InnerLoopDLPCStatus               CRITICALITY ignore          TYPE InnerLoopDLPCStatus                              PRESENCE optional } |
    { ID id-DLReferencePowerList-DL-PC-Rqst   CRITICALITY ignore          TYPE DL-ReferencePowerInformationList-DL-PC-Rqst      PRESENCE conditional}
|
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    { ID id-MaxAdjustmentStep                 CRITICALITY ignore          TYPE MaxAdjustmentStep                                PRESENCE conditional }
|
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    { ID id-AdjustmentPeriod                  CRITICALITY ignore          TYPE AdjustmentPeriod                                 PRESENCE conditional
}|
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    { ID id-AdjustmentRatio                   CRITICALITY ignore          TYPE ScaledAdjustmentRatio                            PRESENCE conditional
},
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    ...
}

DL-ReferencePowerInformationList-DL-PC-Rqst         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {DL-
ReferencePowerInformation-DL-PC-Rqst-IEs} }

DL-ReferencePowerInformation-DL-PC-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-ReferencePowerInformation-DL-PC-Rqst CRITICALITY ignore  TYPE DL-ReferencePowerInformation-DL-PC-Rqst   PRESENCE mandatory   }
}

DL-ReferencePowerInformation-DL-PC-Rqst ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-Reference-Power          DL-Power,
    iE-Extensions               ProtocolExtensionContainer { {DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs} } OPTIONAL,
```

```
    ...
}

DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-PowerControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DOWNLINK POWER TIMESLOT CONTROL REQUEST TDD
--
-- **************************************************************

DL-PowerTimeslotControlRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DL-PowerTimeslotControlRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DL-PowerTimeslotControlRequest-Extensions}}                  OPTIONAL,
    ...
}

DL-PowerTimeslotControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-timeSlot-ISCP   CRITICALITY ignore  TYPE DL-TimeSlot-ISCP-Info  PRESENCE optional},
    --Mandatory for 3.84Mcps TDD and 7.68 Mcps TDD only
    ...
}

DL-PowerTimeslotControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD   CRITICALITY ignore      EXTENSION  DL-TimeSlot-ISCP-LCR-Information  PRESENCE optional}|
    --Mandatory for 1.28Mcps TDD only
    { ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD            CRITICALITY ignore      EXTENSION PrimaryCCPCH-RSCP                 PRESENCE optional }|
    { ID id-PrimaryCCPCH-RSCP-Delta                 CRITICALITY ignore      EXTENSION PrimaryCCPCH-RSCP-Delta           PRESENCE optional },
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST FDD
--
-- **************************************************************

PhysicalChannelReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestFDD-Extensions}}                  OPTIONAL,
    ...
}

PhysicalChannelReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-PhyChReconfRqstFDD   CRITICALITY reject  TYPE RL-Information-PhyChReconfRqstFDD    PRESENCE mandatory   },
    ...
}
```

```
RL-Information-PhyChReconfRqstFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-CodeInformation              DL-CodeInformationList-PhyChReconfRqstFDD,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-PhyChReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-F-DPCH-SlotFormat               CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat     PRESENCE optional},
    ...
}

DL-CodeInformationList-PhyChReconfRqstFDD       ::= ProtocolIE-Single-Container { {DL-CodeInformationListIEs-PhyChReconfRqstFDD} }

DL-CodeInformationListIEs-PhyChReconfRqstFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation  CRITICALITY notify  TYPE FDD-DL-CodeInformation PRESENCE mandatory  }
}

PhysicalChannelReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST TDD
--
-- **************************************************************

PhysicalChannelReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestTDD-Extensions}}                    OPTIONAL,
    ...
}

PhysicalChannelReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-PhyChReconfRqstTDD   CRITICALITY reject  TYPE RL-Information-PhyChReconfRqstTDD    PRESENCE mandatory   },
    ...
}

RL-Information-PhyChReconfRqstTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    ul-CCTrCH-Information       UL-CCTrCH-InformationList-PhyChReconfRqstTDD    OPTIONAL,
    dl-CCTrCH-Information       DL-CCTrCH-InformationList-PhyChReconfRqstTDD    OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD         CRITICALITY reject  EXTENSION HSPDSCH-Timeslot-InformationList-
PhyChReconfRqstTDD      PRESENCE optional } |
    --For 3.84Mcps TDD only
    { ID id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD      CRITICALITY reject  EXTENSION HSPDSCH-Timeslot-InformationListLCR-
PhyChReconfRqstTDD  PRESENCE optional }|
    --For 1.28Mcps TDD only
```

```
    { ID id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD768      CRITICALITY reject  EXTENSION HSPDSCH-Timeslot-InformationList-
PhyChReconfRqstTDD768       PRESENCE optional }|
    --For 7.68Mcps TDD only
    { ID id-UARFCNforNt                                                 CRITICALITY ignore  EXTENSION UARFCN          PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationList-PhyChReconfRqstTDD        ::= ProtocolIE-Single-Container { {UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }

UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD      CRITICALITY reject  TYPE UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD    PRESENCE
mandatory   }
}

UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-PhyChReconfRqstTDD

UL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-PhyChReconfRqstTDD,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}

UL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-PhyChReconfRqstTDD   CRITICALITY notify TYPE UL-DPCH-InformationItem-PhyChReconfRqstTDD    PRESENCE mandatory }
}

UL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod        OPTIONAL,
    repetitionLength                RepetitionLength        OPTIONAL,
    tDD-DPCHOffset                  TDD-DPCHOffset          OPTIONAL,
    uL-Timeslot-InformationList-PhyChReconfRqstTDD          UL-Timeslot-InformationList-PhyChReconfRqstTDD   OPTIONAL,
    --For 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD   CRITICALITY reject     EXTENSION  UL-TimeslotLCR-InformationList-
PhyChReconfRqstTDD      PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-UL-Timeslot-InformationList-PhyChReconfRqstTDD768   CRITICALITY reject      EXTENSION  UL-Timeslot-InformationList-
PhyChReconfRqstTDD768       PRESENCE optional },
    --For 7.68Mcps TDD only
    ...
}
```

```
UL-TimeslotLCR-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD

UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    midambleShiftLCR                MidambleShiftLCR        OPTIONAL,
    tFCI-Presence                   TFCI-Presence       OPTIONAL,
    uL-Code-LCR-Information         TDD-UL-Code-LCR-Information     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-PLCCH-Information-PhyChReconfRqstTDD        CRITICALITY reject      EXTENSION PLCCHinformation    PRESENCE optional },
    ...
}

UL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem-PhyChReconfRqstTDD

UL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType       OPTIONAL,
    tFCI-Presence                   TFCI-Presence       OPTIONAL,
    uL-Code-Information         TDD-UL-Code-Information     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationList-PhyChReconfRqstTDD768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem-PhyChReconfRqstTDD768

UL-Timeslot-InformationItem-PhyChReconfRqstTDD768 ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768        OPTIONAL,
    tFCI-Presence                   TFCI-Presence       OPTIONAL,
    uL-Code-Information768          TDD-UL-Code-Information768      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-PhyChReconfRqstTDD        ::= ProtocolIE-Single-Container { {DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }

DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD      CRITICALITY reject  TYPE DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD    PRESENCE
mandatory   }
}

DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-PhyChReconfRqstTDD
```

```
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    dl-DPCH-Information              DL-DPCH-InformationList-PhyChReconfRqstTDD,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}

DL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-PhyChReconfRqstTDD   CRITICALITY notify TYPE DL-DPCH-InformationItem-PhyChReconfRqstTDD    PRESENCE mandatory }
}

DL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    repetitionPeriod                            RepetitionPeriod                                                                    OPTIONAL,
    repetitionLength                            RepetitionLength                                                                    OPTIONAL,
    tDD-DPCHOffset                              TDD-DPCHOffset                                                                      OPTIONAL,
    dL-Timeslot-InformationList-PhyChReconfRqstTDD  DL-Timeslot-InformationList-PhyChReconfRqstTDD                                  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { {DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD      CRITICALITY reject      EXTENSION DL-TimeslotLCR-InformationList-
PhyChReconfRqstTDD      PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-DL-Timeslot-InformationList-PhyChReconfRqstTDD768       CRITICALITY reject      EXTENSION DL-Timeslot-InformationList-
PhyChReconfRqstTDD768       PRESENCE optional },
    --For 7.68Mcps TDD only
    ...
}

DL-TimeslotLCR-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD

DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    midambleShiftLCR                MidambleShiftLCR        OPTIONAL,
    tFCI-Presence                   TFCI-Presence       OPTIONAL,
    dL-Code-LCR-Information         TDD-DL-Code-LCR-Information     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem-PhyChReconfRqstTDD
```

```
DL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType       OPTIONAL,
    tFCI-Presence                   TFCI-Presence       OPTIONAL,
    dL-Code-Information         TDD-DL-Code-Information     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationList-PhyChReconfRqstTDD768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem-PhyChReconfRqstTDD768

DL-Timeslot-InformationItem-PhyChReconfRqstTDD768 ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768        OPTIONAL,
    tFCI-Presence                   TFCI-Presence       OPTIONAL,
    dL-Code-Information768          TDD-DL-Code-Information768      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD

HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    iE-Extensions                               ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs } }
            OPTIONAL,
    ...
}

HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF HSPDSCH-Timeslot-InformationItemLCR-
PhyChReconfRqstTDD

HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD::= SEQUENCE {
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    iE-Extensions                               ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs } }
        OPTIONAL,
    ...
}

HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD768 ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-Timeslot-InformationItem-
PhyChReconfRqstTDD768

HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD768::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    iE-Extensions                               ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs }
}           OPTIONAL,
    ...
}

HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PhysicalChannelReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION COMMAND
--
-- **************************************************************

PhysicalChannelReconfigurationCommand ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationCommand-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationCommand-Extensions}}                    OPTIONAL,
    ...
}

PhysicalChannelReconfigurationCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CFN                 CRITICALITY ignore  TYPE CFN                    PRESENCE mandatory   } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

PhysicalChannelReconfigurationCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************************

PhysicalChannelReconfigurationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationFailure-Extensions}}                    OPTIONAL,
    ...
```

```
}

PhysicalChannelReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

PhysicalChannelReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK CONGESTION INDICATION
--
-- **************************************************************

RadioLinkCongestionIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkCongestionIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkCongestionIndication-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkCongestionIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CongestionCause                     CRITICALITY ignore  TYPE CongestionCause                     PRESENCE optional }|
    { ID id-RL-InformationList-RL-CongestInd    CRITICALITY ignore  TYPE RL-InformationList-RL-CongestInd    PRESENCE mandatory },
    ...
}

RL-InformationList-RL-CongestInd            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
CongestInd} }

RL-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-CongestInd        CRITICALITY ignore  TYPE RL-InformationItem-RL-CongestInd    PRESENCE mandatory   }
}

RL-InformationItem-RL-CongestInd ::= SEQUENCE {
    rL-ID                               RL-ID,
    dCH-Rate-Information        DCH-Rate-Information-RL-CongestInd,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-CongestInd-ExtIEs} } OPTIONAL,
    ...
}

DCH-Rate-Information-RL-CongestInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF ProtocolIE-Single-Container { {DCH-Rate-InformationItemIEs-RL-
CongestInd} }

DCH-Rate-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-Rate-InformationItem-RL-CongestInd      CRITICALITY ignore  TYPE DCH-Rate-InformationItem-RL-CongestInd     PRESENCE mandatory   }
}

DCH-Rate-InformationItem-RL-CongestInd ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    allowed-Rate-Information    Allowed-Rate-Information OPTIONAL,
```

```
    iE-Extensions               ProtocolExtensionContainer { {DCH-Rate-InformationItem-RL-CongestInd-ExtIEs} } OPTIONAL,
    ...
}

DCH-Rate-InformationItem-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-MacdFlowSpecificInformationList-RL-CongestInd  CRITICALITY ignore  EXTENSION EDCH-MacdFlowSpecificInformationList-RL-CongestInd
PRESENCE optional }|
    { ID id-DCH-Indicator-For-E-DCH-HSDPA-Operation     CRITICALITY ignore  EXTENSION DCH-Indicator-For-E-DCH-HSDPA-Operation
            PRESENCE optional },
    ...
}

RadioLinkCongestionIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-MacdFlowSpecificInformationList-RL-CongestInd  ::= SEQUENCE (SIZE (1.. maxNrOfEDCHMACdFlows)) OF ProtocolIE-Single-Container { {EDCH-
MacdFlowSpecificInformationItemIEs-RL-CongestInd} }

EDCH-MacdFlowSpecificInformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-EDCH-MacdFlowSpecificInformationItem-RL-CongestInd      CRITICALITY ignore  TYPE EDCH-MacdFlowSpecificInformationItem-RL-CongestInd
    PRESENCE mandatory  }
}

EDCH-MacdFlowSpecificInformationItem-RL-CongestInd ::= SEQUENCE {
    eDCH-MACdFlow-ID            EDCH-MACdFlow-ID,
    iE-Extensions               ProtocolExtensionContainer { { EDCH-MacdFlowSpecificInformation-RL-CongestInd-ExtIEs} } OPTIONAL,
    ...
}

EDCH-MacdFlowSpecificInformation-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UPLINK SIGNALLING TRANSFER INDICATION FDD
--
-- **************************************************************

UplinkSignallingTransferIndicationFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UplinkSignallingTransferIndicationFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UplinkSignallingTransferIndicationFDD-Extensions}}                   OPTIONAL,
    ...
}

UplinkSignallingTransferIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UC-ID                                       CRITICALITY ignore   TYPE UC-ID                                      PRESENCE mandatory }
|
```

```
    { ID id-SAI                                          CRITICALITY ignore   TYPE SAI                                          PRESENCE mandatory }
|
    { ID id-GA-Cell                                      CRITICALITY ignore   TYPE GA-Cell                                      PRESENCE optional  }
|
    { ID id-C-RNTI                                       CRITICALITY ignore   TYPE C-RNTI                                       PRESENCE mandatory }
|
    { ID id-S-RNTI                                       CRITICALITY ignore   TYPE S-RNTI                                       PRESENCE mandatory }
|
    { ID id-D-RNTI                                       CRITICALITY ignore   TYPE D-RNTI                                       PRESENCE optional  }
|
    { ID id-PropagationDelay                             CRITICALITY ignore   TYPE PropagationDelay                             PRESENCE mandatory }
|
    { ID id-STTD-SupportIndicator                        CRITICALITY ignore   TYPE STTD-SupportIndicator                        PRESENCE mandatory }
|
    { ID id-ClosedLoopMode1-SupportIndicator             CRITICALITY ignore   TYPE ClosedLoopMode1-SupportIndicator             PRESENCE mandatory }
|
    { ID id-L3-Information                               CRITICALITY ignore   TYPE L3-Information                               PRESENCE mandatory }
|
    { ID id-CN-PS-DomainIdentifier                       CRITICALITY ignore   TYPE CN-PS-DomainIdentifier                       PRESENCE optional  }
|
    { ID id-CN-CS-DomainIdentifier                       CRITICALITY ignore   TYPE CN-CS-DomainIdentifier                       PRESENCE optional  }
|
    { ID id-URA-Information                              CRITICALITY ignore   TYPE URA-Information                              PRESENCE optional  },
    ...
}

UplinkSignallingTransferIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                      CRITICALITY ignore   EXTENSION GA-CellAdditionalShapes             PRESENCE optional }|
    { ID id-DPC-Mode-Change-SupportIndicator             CRITICALITY ignore   EXTENSION DPC-Mode-Change-SupportIndicator    PRESENCE optional }|
    { ID id-CommonTransportChannelResourcesInitialisationNotRequired   CRITICALITY ignore                                   EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired   PRESENCE optional }|
    { ID id-CellCapabilityContainer-FDD                  CRITICALITY ignore   EXTENSION CellCapabilityContainer-FDD         PRESENCE optional }|
    { ID id-SNA-Information                              CRITICALITY ignore   EXTENSION SNA-Information                     PRESENCE optional }|
    { ID id-CellPortionID                                CRITICALITY ignore   EXTENSION CellPortionID                       PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD                CRITICALITY ignore   EXTENSION Active-MBMS-Bearer-Service-ListFDD  PRESENCE optional}|
    { ID id-Inter-Frequency-Cell-List                    CRITICALITY ignore   EXTENSION Inter-Frequency-Cell-List           PRESENCE optional }|
    { ID id-ExtendedPropagationDelay                     CRITICALITY ignore   EXTENSION ExtendedPropagationDelay            PRESENCE optional }|
    { ID id-HSDSCH-RNTI                                  CRITICALITY ignore   EXTENSION HSDSCH-RNTI                         PRESENCE optional }|
    { ID id-Multiple-PLMN-List                           CRITICALITY ignore   EXTENSION Multiple-PLMN-List                  PRESENCE optional }|
    { ID id-E-RNTI                                       CRITICALITY ignore   EXTENSION E-RNTI                              PRESENCE optional }|
    { ID id-Max-UE-DTX-Cycle                             CRITICALITY ignore   EXTENSION Max-UE-DTX-Cycle                     PRESENCE
conditional }|
    -- This IE shall be present if the Continuous Packet Connectivity DTX-DRX Support Indicator IE in Cell Capability Container FDD IE is set to 1.
    { ID id-CellCapabilityContainerExtension-FDD    CRITICALITY ignore  EXTENSION   CellCapabilityContainerExtension-FDD PRESENCE optional }|
    { ID id-Secondary-Serving-Cell-List CRITICALITY ignore  EXTENSION Secondary-Serving-Cell-List    PRESENCE optional }|
    { ID id-Dual-Band-Secondary-Serving-Cell-List   CRITICALITY ignore  EXTENSION Secondary-Serving-Cell-List    PRESENCE optional },
    ...
}

-- **************************************************************
--
-- UPLINK SIGNALLING TRANSFER INDICATION TDD
--
-- **************************************************************
```

```
UplinkSignallingTransferIndicationTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UplinkSignallingTransferIndicationTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UplinkSignallingTransferIndicationTDD-Extensions}}                  OPTIONAL,
    ...
}

UplinkSignallingTransferIndicationTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UC-ID                                 CRITICALITY ignore     TYPE UC-ID                                                PRESENCE mandatory }
|
    { ID id-SAI                                   CRITICALITY ignore     TYPE SAI                                                  PRESENCE mandatory }
|
    { ID id-GA-Cell                               CRITICALITY ignore     TYPE GA-Cell                                              PRESENCE optional }
|
    { ID id-C-RNTI                                CRITICALITY ignore     TYPE C-RNTI                                               PRESENCE mandatory }
|
    { ID id-S-RNTI                                CRITICALITY ignore     TYPE S-RNTI                                               PRESENCE mandatory }
|
    { ID id-D-RNTI                                CRITICALITY ignore     TYPE D-RNTI                                               PRESENCE optional }
|
    { ID id-RxTimingDeviationForTA                CRITICALITY ignore     TYPE RxTimingDeviationForTA                               PRESENCE mandatory }
|
    { ID id-L3-Information                        CRITICALITY ignore     TYPE L3-Information                                       PRESENCE mandatory }
|
    { ID id-CN-PS-DomainIdentifier                CRITICALITY ignore     TYPE CN-PS-DomainIdentifier                               PRESENCE optional }
|
    { ID id-CN-CS-DomainIdentifier                CRITICALITY ignore     TYPE CN-CS-DomainIdentifier                               PRESENCE optional }
|
    { ID id-URA-Information                       CRITICALITY ignore     TYPE URA-Information                                      PRESENCE optional },
    ...
}

UplinkSignallingTransferIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes               CRITICALITY ignore     EXTENSION GA-CellAdditionalShapes                         PRESENCE optional }|
    { ID id-CommonTransportChannelResourcesInitialisationNotRequired   CRITICALITY ignore
EXTENSION CommonTransportChannelResourcesInitialisationNotRequired                                                               PRESENCE optional }|
    { ID id-CellCapabilityContainer-TDD           CRITICALITY ignore     EXTENSION CellCapabilityContainer-TDD                     PRESENCE optional }|
    -- Applicable to 3.84Mcps TDD only
    { ID id-CellCapabilityContainer-TDD-LCR       CRITICALITY ignore     EXTENSION CellCapabilityContainer-TDD-LCR                 PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-SNA-Information                       CRITICALITY ignore     EXTENSION SNA-Information                                 PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceTDD         CRITICALITY ignore     EXTENSION Active-MBMS-Bearer-Service-ListTDD              PRESENCE optional }|
    { ID id-CellCapabilityContainer-TDD768        CRITICALITY ignore     EXTENSION CellCapabilityContainer-TDD768                  PRESENCE optional }|
    -- Applicable to 7.68Mcps TDD only
    { ID id-RxTimingDeviationForTA768             CRITICALITY ignore     EXTENSION RxTimingDeviationForTA768                       PRESENCE optional }|
    { ID id-RxTimingDeviationForTAext             CRITICALITY ignore     EXTENSION RxTimingDeviationForTAext                       PRESENCE optional }|
    { ID id-Multiple-PLMN-List                    CRITICALITY ignore     EXTENSION Multiple-PLMN-List                              PRESENCE optional }|
    { ID id-HSDSCH-RNTI                           CRITICALITY ignore     EXTENSION HSDSCH-RNTI                                     PRESENCE optional }|
    { ID id-E-RNTI                                CRITICALITY ignore     EXTENSION E-RNTI                                          PRESENCE optional }|
    { ID id-CellPortionLCRID                      CRITICALITY ignore     EXTENSION CellPortionLCRID                                PRESENCE optional },
    ...

}
```

```
-- **************************************************************
--
-- DOWNLINK SIGNALLING TRANSFER REQUEST
--
-- **************************************************************

DownlinkSignallingTransferRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DownlinkSignallingTransferRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DownlinkSignallingTransferRequest-Extensions}}                    OPTIONAL,
    ...
}

DownlinkSignallingTransferRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-C-ID                        CRITICALITY ignore  TYPE C-ID                          PRESENCE mandatory } |
    -- May be a GERAN cell identifier
    { ID id-D-RNTI                      CRITICALITY ignore  TYPE D-RNTI                        PRESENCE mandatory } |
    { ID id-L3-Information              CRITICALITY ignore  TYPE L3-Information                PRESENCE mandatory } |
    { ID id-D-RNTI-ReleaseIndication    CRITICALITY ignore  TYPE D-RNTI-ReleaseIndication        PRESENCE mandatory },
    ...
}

DownlinkSignallingTransferRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-URA-ID                      CRITICALITY ignore      EXTENSION   URA-ID                      PRESENCE optional}|
    { ID id-MBMS-Bearer-Service-List    CRITICALITY ignore      EXTENSION MBMS-Bearer-Service-List      PRESENCE optional}|
    { ID id-Old-URA-ID                  CRITICALITY ignore      EXTENSION   URA-ID                      PRESENCE optional}|
    { ID id-SRNC-ID                     CRITICALITY  ignore     EXTENSION   RNC-ID                      PRESENCE conditional}|
    -- This IE shall be present if the URA-ID IE or Old URA-ID IE is present.
    { ID id-Extended-SRNC-ID            CRITICALITY reject      EXTENSION   Extended-RNC-ID             PRESENCE optional}|
    { ID id-Enhanced-PCH-Capability     CRITICALITY  ignore     EXTENSION   Enhanced-PCH-Capability      PRESENCE optional},
    -- FDD and 1.28Mcps TDD only
    ...
}


-- **************************************************************
--
-- RELOCATION COMMIT
--
-- **************************************************************

RelocationCommit ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RelocationCommit-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RelocationCommit-Extensions}}                  OPTIONAL,
    ...
}

RelocationCommit-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                 PRESENCE optional   } |
    { ID id-RANAP-RelocationInformation     CRITICALITY ignore  TYPE RANAP-RelocationInformation    PRESENCE optional },
    ...
}

RelocationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

-- **************************************************************
--
-- PAGING REQUEST
--
-- **************************************************************

PagingRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PagingRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PagingRequest-Extensions}}                  OPTIONAL,
    ...
}

PagingRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-PagingArea-PagingRqst           CRITICALITY ignore  TYPE PagingArea-PagingRqst          PRESENCE mandatory   } |
    { ID id-SRNC-ID                         CRITICALITY ignore  TYPE RNC-ID                        PRESENCE mandatory   } | -- May be a BSC-Id.
    { ID id-S-RNTI                          CRITICALITY ignore  TYPE S-RNTI                        PRESENCE mandatory   } |
    { ID id-IMSI                            CRITICALITY ignore  TYPE IMSI                          PRESENCE mandatory   } |
    { ID id-DRXCycleLengthCoefficient       CRITICALITY ignore  TYPE DRXCycleLengthCoefficient      PRESENCE mandatory   }|
    { ID id-CNOriginatedPage-PagingRqst     CRITICALITY ignore  TYPE CNOriginatedPage-PagingRqst    PRESENCE optional    },
    ...
}

PagingArea-PagingRqst ::= CHOICE {
    uRA                     URA-PagingRqst, -- May be a GRA-ID.
    cell                    Cell-PagingRqst, -- UTRAN only
    ...
}

URA-PagingRqst ::= SEQUENCE {
    uRA-ID                      URA-ID,
    iE-Extensions               ProtocolExtensionContainer { { URAItem-PagingRqst-ExtIEs} } OPTIONAL,
    ...
}

URAItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-PagingRqst ::= SEQUENCE {
    c-ID                        C-ID,
    iE-Extensions               ProtocolExtensionContainer { { CellItem-PagingRqst-ExtIEs} } OPTIONAL,
    ...
}

CellItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CNOriginatedPage-PagingRqst::= SEQUENCE {
    pagingCause                 PagingCause,
    cNDomainType                CNDomainType,
    pagingRecordType            PagingRecordType,
```

```
    iE-Extensions               ProtocolExtensionContainer { { CNOriginatedPage-PagingRqst-ExtIEs} } OPTIONAL,
    ...
}

CNOriginatedPage-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PagingRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-SRNC-ID            CRITICALITY reject      EXTENSION   Extended-RNC-ID         PRESENCE optional}|
    { ID id-Enhanced-PCH-Capability     CRITICALITY ignore      EXTENSION   Enhanced-PCH-Capability  PRESENCE optional},
    -- FDD and 1.28Mcps TDD only
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

DedicatedMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementInitiationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}                  OPTIONAL,
    ...
}

DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY reject  TYPE MeasurementID              PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst  CRITICALITY reject  TYPE DedicatedMeasurementObjectType-DM-Rqst PRESENCE mandatory } |

    { ID id-DedicatedMeasurementType        CRITICALITY reject  TYPE DedicatedMeasurementType       PRESENCE mandatory } |
    { ID id-MeasurementFilterCoefficient    CRITICALITY reject  TYPE MeasurementFilterCoefficient   PRESENCE optional } |
    { ID id-ReportCharacteristics           CRITICALITY reject  TYPE ReportCharacteristics          PRESENCE mandatory }|
    { ID id-CFNReportingIndicator           CRITICALITY reject  TYPE FNReportingIndicator           PRESENCE mandatory }|
    { ID id-CFN                             CRITICALITY reject  TYPE CFN                            PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL                      RL-DM-Rqst,
    rLS                     RL-Set-DM-Rqst,
    allRL                   All-RL-DM-Rqst,
    allRLS                  All-RL-Set-DM-Rqst,
    ...
}

RL-DM-Rqst ::= SEQUENCE {
    rL-InformationList-DM-Rqst      RL-InformationList-DM-Rqst,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
    }

RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

RL-InformationList-DM-Rqst                  ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rqst-IEs} }

RL-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst      CRITICALITY reject  TYPE RL-InformationItem-DM-Rqst     PRESENCE mandatory   }
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-ID                       RL-ID,
    dPCH-ID                     DPCH-ID     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSSICH-Info-DM-Rqst                 CRITICALITY reject              EXTENSION HSSICH-Info-DM-Rqst                   PRESENCE optional}|
    -- TDD only
    { ID id-DPCH-ID768-DM-Rqst                  CRITICALITY reject              EXTENSION DPCH-ID768                            PRESENCE optional}|
    { ID id-HSSICH-Info-DM-Rqst-Extension       CRITICALITY reject              EXTENSION HSSICH-Info-DM-Rqst-Extension         PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID

HSSICH-Info-DM-Rqst-Extension ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID-Extension

RL-Set-DM-Rqst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rqst  RL-Set-InformationList-DM-Rqst,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
    }

RL-SetItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rqst                  ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
Rqst-IEs} }

RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rqst      CRITICALITY reject  TYPE RL-Set-InformationItem-DM-Rqst      PRESENCE mandatory   }
}

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

All-RL-DM-Rqst ::= NULL

All-RL-Set-DM-Rqst ::= NULL

DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-PartialReportingIndicator               CRITICALITY ignore  EXTENSION   PartialReportingIndicator            PRESENCE optional }|
    { ID    id-MeasurementRecoveryBehavior          CRITICALITY ignore  EXTENSION   MeasurementRecoveryBehavior          PRESENCE optional }|
    { ID id-AlternativeFormatReportingIndicator     CRITICALITY ignore  EXTENSION   AlternativeFormatReportingIndicator  PRESENCE optional },
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
-- **************************************************************

DedicatedMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementInitiationResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}                  OPTIONAL,
    ...
}

DedicatedMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                           CRITICALITY ignore  TYPE MeasurementID                          PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rsp   CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rsp  PRESENCE optional } |
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore  TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rLs                     RL-DM-Rsp,
    rLS                     RL-Set-DM-Rsp,
    allRL                   RL-DM-Rsp,
    allRLS                  RL-Set-DM-Rsp,
    ...
}

RL-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp                       RL-InformationList-DM-Rsp,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp   RL-Set-InformationList-DM-Rsp,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
```

```
}

RL-SetItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rsp                   ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rsp-IEs} }

RL-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp       CRITICALITY ignore  TYPE RL-InformationItem-DM-Rsp    PRESENCE mandatory   }
}

RL-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-ID                       RL-ID,
    dPCH-ID                     DPCH-ID             OPTIONAL,
    dedicatedMeasurementValue   DedicatedMeasurementValue,
    cFN                         CFN                 OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM       CRITICALITY reject              EXTENSION   HS-SICH-ID      PRESENCE optional}|
    -- TDD only
    { ID    id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp    CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp
    PRESENCE optional   }|
    -- Applicable to 3.84Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID    id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp    CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-LCR-
TDD-DM-Rsp  PRESENCE optional   }|
    -- Applicable to 1.28Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID    id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp           CRITICALITY ignore  EXTENSION Multiple-HSSICHMeasurementValueList-TDD-DM-
Rsp PRESENCE optional   }|
    -- TDD only. This list of HS-SICH measurement values is used for the 2nd and beyond measurements of a RL when multiple HS-SICH measurement
values need to be reported.
    { ID    id-multiple-DedicatedMeasurementValueList-TDD768-DM-Rsp     CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-
TDD768-DM-Rsp   PRESENCE optional   }|
    -- Applicable to 7.68Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID    id-DPCH-ID768-DM-Rsp                                    CRITICALITY ignore  EXTENSION DPCH-ID768
    PRESENCE optional}|
    { ID id-HS-SICH-ID-Extension                                    CRITICALITY ignore  EXTENSION HS-SICH-ID-Extension
    PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

RL-Set-InformationList-DM-Rsp   ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rsp-IEs} }

RL-Set-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp       CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rsp    PRESENCE mandatory   }
}
```

```
RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    cFN                             CFN         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} }   OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MeasurementRecoverySupportIndicator      CRITICALITY ignore      EXTENSION   MeasurementRecoverySupportIndicator   PRESENCE optional
    },
    ...
}

Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-TDD-DM-
Rsp

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    iE-Extensions                       ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...

}

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsLCRPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-
LCR-TDD-DM-Rsp

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    iE-Extensions                       ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs} }
    OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-HSSICHMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfHSSICHs-1)) OF Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp

Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    hsSICH-ID                           HS-SICH-ID,
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    iE-Extensions                       ProtocolExtensionContainer { { Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }   OPTIONAL,
```

```
    ...
}


Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-SICH-ID-Extension            CRITICALITY ignore      EXTENSION HS-SICH-ID-Extension      PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

Multiple-DedicatedMeasurementValueList-TDD768-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHs768PerRL-1)) OF Multiple-DedicatedMeasurementValueItem-
TDD768-DM-Rsp

Multiple-DedicatedMeasurementValueItem-TDD768-DM-Rsp ::= SEQUENCE {
    dPCH-ID768                          DPCH-ID768,
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    iE-Extensions                       ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-TDD768-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...

}

Multiple-DedicatedMeasurementValueItem-TDD768-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

DedicatedMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}                    OPTIONAL,
    ...
}

DedicatedMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   } |
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

DedicatedMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DedicatedMeasurementObjectType-DM-Fail  CRITICALITY ignore  EXTENSION DedicatedMeasurementObjectType-DM-Fail  PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Fail ::= CHOICE {
    rL                      RL-DM-Fail,
    rLS                     RL-Set-DM-Fail,
    allRL                   RL-DM-Fail,
    allRLS                  RL-Set-DM-Fail,
```

```
    ...
}

RL-DM-Fail ::= SEQUENCE {
    rL-unsuccessful-InformationRespList-DM-Fail     RL-Unsuccessful-InformationRespList-DM-Fail,
    rL-successful-InformationRespList-DM-Fail       RL-Successful-InformationRespList-DM-Fail       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Fail ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail RL-Set-Unsuccessful-InformationRespList-DM-Fail,
    rL-Set-successful-InformationRespList-DM-Fail   RL-Set-Successful-InformationRespList-DM-Fail      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Unsuccessful-InformationRespList-DM-Fail         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-IEs} }

RL-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail     CRITICALITY ignore  TYPE RL-Unsuccessful-InformationItem-DM-Fail    PRESENCE mandatory   }
}

RL-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-ID                       RL-ID,
    individualcause             Cause   OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Successful-InformationRespList-DM-Fail           ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Successful-
InformationResp-DM-Fail-IEs} }

RL-Successful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Successful-InformationItem-DM-Fail       CRITICALITY ignore  TYPE RL-Successful-InformationItem-DM-Fail   PRESENCE mandatory   }
}

RL-Successful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-ID                       RL-ID,
    dPCH-ID                     DPCH-ID             OPTIONAL,
    dedicatedMeasurementValue   DedicatedMeasurementValue,
```

```
    cFN                         CFN                 OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-Successful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-Successful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM                   CRITICALITY reject              EXTENSION   HS-SICH-ID              PRESENCE optional}|
    -- TDD only
    { ID id-HS-SICH-ID-Extension            CRITICALITY ignore              EXTENSION HS-SICH-ID-Extension      PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

RL-Set-Unsuccessful-InformationRespList-DM-Fail             ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-IEs} }

RL-Set-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail     CRITICALITY ignore  TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail     PRESENCE
mandatory   }
}

RL-Set-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    individualcause                 Cause       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-Successful-InformationRespList-DM-Fail               ::= SEQUENCE (SIZE (1..maxNrOfRLSets-1)) OF ProtocolIE-Single-Container { {RL-Set-
Successful-InformationResp-DM-Fail-IEs} }

RL-Set-Successful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Successful-InformationItem-DM-Fail       CRITICALITY ignore  TYPE RL-Set-Successful-InformationItem-DM-Fail    PRESENCE
mandatory   }
}

RL-Set-Successful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    cFN                             CFN                 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-Successful-InformationItem-DM-Failns-ExtIEs} }  OPTIONAL,
    ...
}

RL-Set-Successful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
```

```
-- DEDICATED MEASUREMENT REPORT
--
-- **************************************************************

DedicatedMeasurementReport ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementReport-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}                  OPTIONAL,
    ...
}

DedicatedMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt  CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE mandatory   },
    ...
}

DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
    rLs                     RL-DM-Rprt,
    rLS                     RL-Set-DM-Rprt,
    allRL                   RL-DM-Rprt,
    allRLS                  RL-Set-DM-Rprt,
    ...
}

RL-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt      RL-InformationList-DM-Rprt,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rprt ::= SEQUENCE {
    rL-Set-InformationList-DM-Rprt  RL-Set-InformationList-DM-Rprt,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rprt                  ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rprt-IEs} }

RL-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rprt      CRITICALITY ignore  TYPE RL-InformationItem-DM-Rprt     PRESENCE mandatory   }
}

RL-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-ID                       RL-ID,
    dPCH-ID                     DPCH-ID             OPTIONAL,
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
```

```
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM-Rprt      CRITICALITY ignore              EXTENSION   HS-SICH-ID      PRESENCE optional}|
    -- TDD only
    { ID    id-DPCH-ID768-DM-Rprt       CRITICALITY ignore              EXTENSION   DPCH-ID768                      PRESENCE optional}|
    { ID id-HS-SICH-ID-Extension        CRITICALITY ignore              EXTENSION HS-SICH-ID-Extension              PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

RL-Set-InformationList-DM-Rprt                  ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
Rprt-IEs} }

RL-Set-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt      CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rprt      PRESENCE mandatory   }
}

RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MeasurementRecoveryReportingIndicator        CRITICALITY ignore      EXTENSION   MeasurementRecoveryReportingIndicator   PRESENCE
optional },
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

DedicatedMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementTerminationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}}                    OPTIONAL,
    ...
}

DedicatedMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   },
    ...
}
```

```
DedicatedMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT FAILURE INDICATION
--
-- **************************************************************

DedicatedMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementFailureIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}                   OPTIONAL,
    ...
}

DedicatedMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   } |
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  },
    ...
}

DedicatedMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DedicatedMeasurementObjectType-DM-Fail-Ind  CRITICALITY ignore  EXTENSION DedicatedMeasurementObjectType-DM-Fail-Ind  PRESENCE optional
    },
    ...
}

DedicatedMeasurementObjectType-DM-Fail-Ind ::= CHOICE {
    rL                      RL-DM-Fail-Ind,
    rLS                     RL-Set-DM-Fail-Ind,
    allRL                   RL-DM-Fail-Ind,
    allRLS                  RL-Set-DM-Fail-Ind,
    ...
}

RL-DM-Fail-Ind ::= SEQUENCE {
    rL-unsuccessful-InformationRespList-DM-Fail-Ind     RL-Unsuccessful-InformationRespList-DM-Fail-Ind,
    iE-Extensions                                       ProtocolExtensionContainer { { RLItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail-Ind     RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind,
    iE-Extensions                                           ProtocolExtensionContainer { { RL-SetItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

RL-Unsuccessful-InformationRespList-DM-Fail-Ind         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-Ind-IEs} }

RL-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail-Ind     CRITICALITY ignore  TYPE RL-Unsuccessful-InformationItem-DM-Fail-Ind     PRESENCE
mandatory   }
}

RL-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
    rL-ID                       RL-ID,
    individualcause             Cause       OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
}

RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind             ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-Ind-IEs} }

RL-Set-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind     CRITICALITY ignore  TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind   PRESENCE
mandatory   }
}

RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-ID                   RL-Set-ID,
    individualcause             Cause       OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
--
-- **************************************************************

CommonTransportChannelResourcesReleaseRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{CommonTransportChannelResourcesReleaseRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{CommonTransportChannelResourcesReleaseRequest-Extensions}}
OPTIONAL,
    ...
}

CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                 PRESENCE mandatory  },
    ...
}

CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES REQUEST
--
-- **************************************************************

CommonTransportChannelResourcesRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesRequest-Extensions}}        OPTIONAL,
    ...
}

CommonTransportChannelResourcesRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                              CRITICALITY reject  TYPE D-RNTI                                 PRESENCE mandatory } |
    { ID id-C-ID                                CRITICALITY reject  TYPE C-ID                                   PRESENCE optional } |
    { ID id-TransportBearerRequestIndicator     CRITICALITY reject  TYPE TransportBearerRequestIndicator        PRESENCE mandatory } |
    { ID id-TransportBearerID                   CRITICALITY reject  TYPE TransportBearerID                      PRESENCE mandatory },
    ...
}

CommonTransportChannelResourcesRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity           CRITICALITY ignore  EXTENSION Permanent-NAS-UE-Identity          PRESENCE optional }|
    { ID id-BindingID                           CRITICALITY ignore  EXTENSION BindingID                         PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress               CRITICALITY ignore  EXTENSION TransportLayerAddress             PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-MBMS-Bearer-Service-List            CRITICALITY notify  EXTENSION MBMS-Bearer-Service-List          PRESENCE optional }|
    { ID id-TnlQos                              CRITICALITY ignore  EXTENSION TnlQos                            PRESENCE optional }|
    { ID id-Enhanced-FACH-Support-Indicator     CRITICALITY ignore  EXTENSION Enhanced-FACH-Support-Indicator    PRESENCE optional }|
     -- FDD and 1.28Mcps TDD only
    { ID id-Common-EDCH-Support-Indicator       CRITICALITY ignore  EXTENSION Common-EDCH-Support-Indicator      PRESENCE optional }|
     -- FDD only
    { ID id-HSDSCH-Physical-Layer-Category      CRITICALITY ignore  EXTENSION HSDSCH-Physical-Layer-Category     PRESENCE optional }|
    { ID id-UE-with-enhanced-HS-SCCH-support-indicator CRITICALITY ignore EXTENSION NULL                        PRESENCE optional },
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RESPONSE FDD
--
-- **************************************************************

CommonTransportChannelResourcesResponseFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesResponseFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseFDD-Extensions}}       OPTIONAL,
```

```
    ...
}

CommonTransportChannelResourcesResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                  CRITICALITY ignore  TYPE S-RNTI                 PRESENCE mandatory  } |
    { ID id-C-RNTI                  CRITICALITY ignore  TYPE C-RNTI                 PRESENCE optional   } |
    { ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD   CRITICALITY ignore  TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
    PRESENCE mandatory  } |
    { ID id-TransportLayerAddress           CRITICALITY ignore  TYPE TransportLayerAddress       PRESENCE optional } |
    { ID id-BindingID               CRITICALITY ignore  TYPE BindingID                  PRESENCE optional  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD ::= SEQUENCE {
    fACH-FlowControlInformation     FACH-FlowControlInformation-CTCH-ResourceRspFDD,
-- If the Enhanced FACH Information Response IE is included in the message, the FACH Flow Control Information IE shall be ignored.
    iE-Extensions                   ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-FlowControlInformation-CTCH-ResourceRspFDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD }}

FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore  TYPE    FACH-FlowControlInformation PRESENCE mandatory  }
}

CommonTransportChannelResourcesResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID                                        CRITICALITY ignore      EXTENSION C-ID
    PRESENCE mandatory  }|
    { ID id-Active-MBMS-Bearer-ServiceFDD               CRITICALITY ignore      EXTENSION Active-MBMS-Bearer-Service-ListFDD
    PRESENCE optional}|
    { ID id-Enhanced-FACH-Information-ResponseFDD        CRITICALITY ignore      EXTENSION Enhanced-FACH-Information-ResponseFDD
    PRESENCE optional}|
    { ID id-Common-EDCH-MAC-d-Flow-Specific-InformationFDD      CRITICALITY ignore      EXTENSION Common-EDCH-MAC-d-Flow-Specific-InformationFDD
    PRESENCE optional}|
    { ID id-E-RNTI  CRITICALITY ignore  EXTENSION E-RNTI    PRESENCE optional },
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD
--
-- **************************************************************

CommonTransportChannelResourcesResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseTDD-Extensions}}       OPTIONAL,
    ...
```

```
}

CommonTransportChannelResourcesResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                  CRITICALITY ignore  TYPE S-RNTI                 PRESENCE mandatory  } |
    { ID id-C-RNTI                  CRITICALITY ignore  TYPE C-RNTI                 PRESENCE optional   } |
    { ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD   CRITICALITY ignore  TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD
    PRESENCE mandatory  } |
    { ID id-TransportLayerAddress           CRITICALITY ignore  TYPE TransportLayerAddress       PRESENCE optional } |
    { ID id-BindingID               CRITICALITY ignore  TYPE BindingID                  PRESENCE optional  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD ::= SEQUENCE {
    fACH-FlowControlInformation     FACH-FlowControlInformation-CTCH-ResourceRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-FlowControlInformation-CTCH-ResourceRspTDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD }}

FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore  TYPE    FACH-FlowControlInformation PRESENCE mandatory  }
}

CommonTransportChannelResourcesResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID                                        CRITICALITY ignore      EXTENSION   C-ID
    PRESENCE mandatory  }|
    { ID id-Active-MBMS-Bearer-ServiceTDD               CRITICALITY ignore      EXTENSION Active-MBMS-Bearer-Service-ListTDD
    PRESENCE optional}|
    { ID id-Enhanced-FACH-Information-ResponseLCR        CRITICALITY ignore      EXTENSION Enhanced-FACH-Information-ResponseLCR
    PRESENCE optional}|
    { ID id-Common-EDCH-MAC-d-Flow-Specific-InformationLCR      CRITICALITY ignore      EXTENSION Common-EDCH-MAC-d-Flow-Specific-InformationLCR
    PRESENCE optional},
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES FAILURE
--
-- **************************************************************

CommonTransportChannelResourcesFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesFailure-Extensions}}        OPTIONAL,
    ...
}

CommonTransportChannelResourcesFailure-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-S-RNTI                          CRITICALITY ignore  TYPE S-RNTI                     PRESENCE mandatory } |
    { ID id-Cause                           CRITICALITY ignore  TYPE Cause                      PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

CommonTransportChannelResourcesFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMPRESSED MODE COMMAND
--
-- **************************************************************

CompressedModeCommand ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CompressedModeCommand-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}                  OPTIONAL,
    ...
}

CompressedModeCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Active-Pattern-Sequence-Information     CRITICALITY ignore  TYPE Active-Pattern-Sequence-Information    PRESENCE mandatory  },
    ...
}

CompressedModeCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- ERROR INDICATION
--
-- **************************************************************

ErrorIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{ErrorIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{ErrorIndication-Extensions}}                   OPTIONAL,
    ...
}

ErrorIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE optional} |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

ErrorIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-S-RNTI                  CRITICALITY ignore  EXTENSION S-RNTI                    PRESENCE optional } |
    { ID id-D-RNTI                  CRITICALITY ignore  EXTENSION D-RNTI                    PRESENCE optional },
    ...
}
```

```
-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

CommonMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementInitiationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationRequest-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                   CRITICALITY reject  TYPE    MeasurementID                               PRESENCE mandatory }|
    { ID id-CommonMeasurementObjectType-CM-Rqst CRITICALITY reject  TYPE    CommonMeasurementObjectType-CM-Rqst     PRESENCE mandatory }|
    { ID id-CommonMeasurementType           CRITICALITY reject  TYPE    CommonMeasurementType                       PRESENCE mandatory }|
    { ID id-MeasurementFilterCoefficient    CRITICALITY reject  TYPE    MeasurementFilterCoefficient                PRESENCE optional }|
    -- UTRAN only
    { ID id-ReportCharacteristics           CRITICALITY reject  TYPE    ReportCharacteristics                       PRESENCE mandatory }|
    { ID id-SFNReportingIndicator           CRITICALITY reject  TYPE    FNReportingIndicator                        PRESENCE mandatory } |
    { ID id-SFN                             CRITICALITY reject  TYPE    SFN                                         PRESENCE optional }|
    -- UTRAN only
    { ID id-CommonMeasurementAccuracy       CRITICALITY reject  TYPE    CommonMeasurementAccuracy                   PRESENCE optional },
    -- UTRAN only
    ...
}

CommonMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-MeasurementRecoveryBehavior              CRITICALITY ignore              EXTENSION   MeasurementRecoveryBehavior    PRESENCE optional
   }|
    -- UTRAN only
    { ID id-GANSS-Time-ID                           CRITICALITY ignore              EXTENSION   GANSS-Time-ID                  PRESENCE optional},
    ...
}

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
    cell                            Cell-CM-Rqst,
    ...
}

Cell-CM-Rqst ::= SEQUENCE {
    uC-ID                           UC-ID,
    -- May be a GERAN cell identifier
    timeSlot                        TimeSlot        OPTIONAL,   --3.84Mcps TDD and 7.68Mcps TDD only
    timeSlotLCR                     TimeSlotLCR     OPTIONAL,   --1.28Mcps TDD only
    neighbouringCellMeasurementInformation          NeighbouringCellMeasurementInfo     OPTIONAL,
    -- UTRAN only
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-CM-Rqst-ExtIEs} }    OPTIONAL,
    ...
}

NeighbouringCellMeasurementInfo ::= SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
        CHOICE {
```

```
                neighbouringFDDCellMeasurementInformation       NeighbouringFDDCellMeasurementInformation,
                neighbouringTDDCellMeasurementInformation       NeighbouringTDDCellMeasurementInformation,
                ...,
                extension-neighbouringCellMeasurementInformation    Extension-neighbouringCellMeasurementInformation,
                extension-neighbouringCellMeasurementInformation768 Extension-neighbouringCellMeasurementInformation768
            }

Extension-neighbouringCellMeasurementInformation    ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}

Extension-neighbouringCellMeasurementInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformationLCR    CRITICALITY reject  TYPE NeighbouringTDDCellMeasurementInformationLCR PRESENCE
mandatory },
    ...
}


Extension-neighbouringCellMeasurementInformation768 ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformation768IE }}

Extension-neighbouringCellMeasurementInformation768IE RNSAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformation768    CRITICALITY reject  TYPE NeighbouringTDDCellMeasurementInformation768 PRESENCE
mandatory },
    ...
}

CellItem-CM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt                 CRITICALITY ignore  EXTENSION UARFCN                PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UPPCHPositionLCR            CRITICALITY reject  EXTENSION UPPCHPositionLCR      PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION RESPONSE
--
-- **************************************************************

CommonMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementInitiationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationResponse-Extensions}}   OPTIONAL,
    ...
}

CommonMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID                        CRITICALITY ignore  TYPE    MeasurementID                           PRESENCE mandatory }|
    { ID    id-CommonMeasurementObjectType-CM-Rsp   CRITICALITY ignore  TYPE    CommonMeasurementObjectType-CM-Rsp      PRESENCE optional }|
    { ID    id-SFN                                  CRITICALITY ignore  TYPE    SFN                                     PRESENCE optional }|
    -- UTRAN only
    { ID    id-CriticalityDiagnostics               CRITICALITY ignore  TYPE    CriticalityDiagnostics                  PRESENCE optional }|
    { ID    id-CommonMeasurementAccuracy            CRITICALITY reject  TYPE    CommonMeasurementAccuracy               PRESENCE optional },
    -- UTRAN only
    ...
}
```

```
CommonMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     { ID    id-MeasurementRecoverySupportIndicator      CRITICALITY ignore      EXTENSION   MeasurementRecoverySupportIndicator   PRESENCE optional
     },
    -- UTRAN only
    ...
}

CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
    cell                        Cell-CM-Rsp,
    ...
 }

Cell-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue                      CommonMeasurementValue,
    iE-Extensions                               ProtocolExtensionContainer  { { CellItem-CM-Rsp-ExtIEs} }    OPTIONAL,
    ...
 }

CellItem-CM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

CommonMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementInitiationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationFailure-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID                CRITICALITY     ignore          TYPE    MeasurementID           PRESENCE mandatory }|
    { ID    id-Cause                        CRITICALITY     ignore          TYPE    Cause                   PRESENCE mandatory }|
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics  PRESENCE optional },
    ...
}

CommonMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT REPORT
--
-- **************************************************************

CommonMeasurementReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementReport-IEs}},
```

```
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementReport-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID                        CRITICALITY ignore  TYPE    MeasurementID                   PRESENCE mandatory   }|
    { ID    id-CommonMeasurementObjectType-CM-Rprt  CRITICALITY ignore  TYPE    CommonMeasurementObjectType-CM-Rprt   PRESENCE mandatory   }|
    { ID    id-SFN                                  CRITICALITY ignore  TYPE    SFN                             PRESENCE optional },
    -- UTRAN only
    ...
}

CommonMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MeasurementRecoveryReportingIndicator        CRITICALITY ignore      EXTENSION   MeasurementRecoveryReportingIndicator   PRESENCE
optional },
    -- UTRAN only
    ...
}

CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
    cell                            Cell-CM-Rprt,
    ...
 }

Cell-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation   CommonMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer  {{ CellItem-CM-Rprt-ExtIEs }}     OPTIONAL,
    ...

 }

CellItem-CM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

CommonMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementTerminationRequest-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID            CRITICALITY     ignore              TYPE    MeasurementID       PRESENCE mandatory},
    ...
}

CommonMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

-- **************************************************************
--
-- COMMON MEASUREMENT FAILURE INDICATION
--
-- **************************************************************

CommonMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementFailureIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{CommonMeasurementFailureIndication-Extensions}}         OPTIONAL,
    ...
}

CommonMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID            CRITICALITY ignore          TYPE    MeasurementID        PRESENCE mandatory   }|
    { ID    id-Cause                    CRITICALITY ignore          TYPE    Cause                PRESENCE mandatory   },
    ...
}

CommonMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION REQUEST
--
-- **************************************************************

InformationExchangeInitiationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeInitiationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationRequest-Extensions}}     OPTIONAL,
    ...
}

InformationExchangeInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                        CRITICALITY reject      TYPE    InformationExchangeID              PRESENCE mandatory
    }|
    { ID    id-InformationExchangeObjectType-InfEx-Rqst     CRITICALITY reject      TYPE    InformationExchangeObjectType-InfEx-Rqst    PRESENCE
    mandatory   }|

    { ID    id-InformationType                              CRITICALITY reject      TYPE    InformationType                    PRESENCE mandatory
    }|
    { ID    id-InformationReportCharacteristics             CRITICALITY reject      TYPE    InformationReportCharacteristics   PRESENCE mandatory
    },
    ...
}

InformationExchangeInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
```

```
    cell                                                Cell-InfEx-Rqst,
    ...,
    extension-InformationExchangeObjectType-InfEx-Rqst      Extension-InformationExchangeObjectType-InfEx-Rqst

}

Cell-InfEx-Rqst ::= SEQUENCE {
    c-ID                            C-ID, --May be a GERAN cell identifier
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-InfEx-Rqst-ExtIEs} }    OPTIONAL,
    ...
}

CellItem-InfEx-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Extension-InformationExchangeObjectType-InfEx-Rqst  ::= ProtocolIE-Single-Container {{ Extension-InformationExchangeObjectType-InfEx-RqstIE }}

Extension-InformationExchangeObjectType-InfEx-RqstIE RNSAP-PROTOCOL-IES ::= {
    { ID id-GSM-Cell-InfEx-Rqst                         CRITICALITY reject          TYPE GSM-Cell-InfEx-Rqst
    PRESENCE mandatory }|
    { ID id-MBMS-Bearer-Service-List                    CRITICALITY     reject      TYPE    MBMS-Bearer-Service-List
    PRESENCE    mandatory}|
    { ID id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rqst     CRITICALITY     reject      TYPE    MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rqst
    PRESENCE    mandatory}|
    { ID id-MBMS-Cell-InfEx-Rqst                        CRITICALITY     reject      TYPE    MBMS-Cell-InfEx-Rqst                    PRESENCE
    mandatory}

}

GSM-Cell-InfEx-Rqst ::= SEQUENCE {
    cGI                             CGI,
    iE-Extensions                   ProtocolExtensionContainer  { { GSMCellItem-InfEx-Rqst-ExtIEs} }    OPTIONAL,
    ...
}

GSMCellItem-InfEx-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rqst ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rqst

MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rqst    ::= SEQUENCE {
    c-ID                            C-ID,
    mBMS-Bearer-Service-List-InfEx-Rqst                         MBMS-Bearer-Service-List-InfEx-Rqst,
    iE-Extensions                   ProtocolExtensionContainer  { { MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rqst-ExtIEs} }    OPTIONAL,
    ...
}

MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
MBMS-Bearer-Service-List-InfEx-Rqst ::= SEQUENCE (SIZE (1..maxNrOfMBMSServices)) OF TMGI

MBMS-Cell-InfEx-Rqst    ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF C-ID


-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION RESPONSE
--
-- **************************************************************

InformationExchangeInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeInitiationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationResponse-Extensions}}    OPTIONAL,
    ...
}

InformationExchangeInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                    CRITICALITY ignore  TYPE    InformationExchangeID             PRESENCE mandatory   }|
    { ID    id-InformationExchangeObjectType-InfEx-Rsp  CRITICALITY ignore  TYPE    InformationExchangeObjectType-InfEx-Rsp    PRESENCE optional }|
    { ID    id-CriticalityDiagnostics                   CRITICALITY ignore  TYPE    CriticalityDiagnostics            PRESENCE optional },
    ...
}

InformationExchangeInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
    cell                        Cell-InfEx-Rsp,
    ...,
    extension-InformationExchangeObjectType-InfEx-Rsp       Extension-InformationExchangeObjectType-InfEx-Rsp
}

Cell-InfEx-Rsp ::= SEQUENCE {
    requestedDataValue              RequestedDataValue,
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-InfEx-Rsp-ExtIEs} }    OPTIONAL,
    ...
}

CellItem-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Extension-InformationExchangeObjectType-InfEx-Rsp   ::= ProtocolIE-Single-Container {{ Extension-InformationExchangeObjectType-InfEx-RspIE }}

Extension-InformationExchangeObjectType-InfEx-RspIE RNSAP-PROTOCOL-IES ::= {
    { ID id-MBMS-Bearer-Service-List-InfEx-Rsp              CRITICALITY     ignore      TYPE    MBMS-Bearer-Service-List-InfEx-Rsp
    PRESENCE    mandatory}|
    { ID id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rsp      CRITICALITY     ignore      TYPE    MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rsp
    PRESENCE    mandatory}|
    { ID id-MBMS-Cell-InfEx-Rsp                             CRITICALITY     ignore      TYPE    MBMS-Cell-InfEx-Rsp
    PRESENCE    mandatory}
```

```
}

MBMS-Bearer-Service-List-InfEx-Rsp  ::= SEQUENCE (SIZE (1..maxNrOfMBMSServices)) OF MBMS-Bearer-ServiceItemIEs-InfEx-Rsp



MBMS-Bearer-ServiceItemIEs-InfEx-Rsp    ::=SEQUENCE{
    tmgi    TMGI,
    requestedDataValue      RequestedDataValue,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItem-InfEx-Rsp-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItem-InfEx-Rsp-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rsp  ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rsp

MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rsp ::= SEQUENCE {
    c-ID                            C-ID,
    mBMS-Bearer-Service-List-InfEx-Rsp                          MBMS-Bearer-Service-List-InfEx-Rsp,
    iE-Extensions                   ProtocolExtensionContainer  { { MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rsp-ExtIEs} }     OPTIONAL,
    ...
}

MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Cell-InfEx-Rsp ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMS-Cell-Item-InfEx-Rsp

MBMS-Cell-Item-InfEx-Rsp    ::= SEQUENCE {
    c-ID                            C-ID,
    requestedDataValue              RequestedDataValue,
    iE-Extensions                   ProtocolExtensionContainer  { { MBMS-Cell-Item-InfEx-Rsp-ExtIEs} }     OPTIONAL,
    ...
}

MBMS-Cell-Item-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION FAILURE
--
-- **************************************************************

InformationExchangeInitiationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeInitiationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationFailure-Extensions}}     OPTIONAL,
    ...
```

```
}

InformationExchangeInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                CRITICALITY     ignore          TYPE    InformationExchangeID           PRESENCE mandatory   }|
    { ID    id-Cause                                CRITICALITY     ignore          TYPE    Cause                           PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics               CRITICALITY     ignore          TYPE    CriticalityDiagnostics          PRESENCE optional },
    ...
}

InformationExchangeInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION REPORT
--
-- **************************************************************

InformationReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationReport-Extensions}}        OPTIONAL,
    ...
}

InformationReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                        CRITICALITY ignore          TYPE    InformationExchangeID                       PRESENCE
    mandatory   }|
    { ID    id-InformationExchangeObjectType-InfEx-Rprt     CRITICALITY ignore          TYPE    InformationExchangeObjectType-InfEx-Rprt    PRESENCE
    mandatory   },
    ...
}

InformationReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
    cell                            Cell-InfEx-Rprt,
    ...,
    extension-InformationExchangeObjectType-InfEx-Rprt      Extension-InformationExchangeObjectType-InfEx-Rprt

 }

Extension-InformationExchangeObjectType-InfEx-Rprt  ::= ProtocolIE-Single-Container {{ Extension-InformationExchangeObjectType-InfEx-RprtIE }}

Extension-InformationExchangeObjectType-InfEx-RprtIE RNSAP-PROTOCOL-IES ::= {
    { ID id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rprt     CRITICALITY     ignore      TYPE    MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rprt
    PRESENCE    mandatory}|
    { ID id-MBMS-Cell-InfEx-Rprt                            CRITICALITY     ignore      TYPE    MBMS-Cell-InfEx-Rprt
    PRESENCE    mandatory}

}
```

```
Cell-InfEx-Rprt ::= SEQUENCE {
    requestedDataValueInformation   RequestedDataValueInformation,
    iE-Extensions                   ProtocolExtensionContainer  {{ CellItem-InfEx-Rprt-ExtIEs }}     OPTIONAL,
    ...

 }

CellItem-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rprt ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rprt

MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rprt    ::= SEQUENCE {
    c-ID                            C-ID,
    mBMS-Bearer-Service-List-InfEx-Rprt                         MBMS-Bearer-Service-List-InfEx-Rprt,
    iE-Extensions                   ProtocolExtensionContainer  { { MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rprt-ExtIEs} }    OPTIONAL,
    ...
}

MBMS-Bearer-Service-in-MBMS-Cell-Item-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-Service-List-InfEx-Rprt ::= SEQUENCE (SIZE (1..maxNrOfMBMSServices)) OF MBMS-Bearer-Service-List-Item-InfEx-Rprt

MBMS-Bearer-Service-List-Item-InfEx-Rprt    ::= SEQUENCE {
    tmgi                    TMGI,
    requestedDataValueInformation   RequestedDataValueInformation,
    iE-Extensions                   ProtocolExtensionContainer  { { MBMS-Bearer-Service-List-Item-InfEx-Rprt-ExtIEs} }   OPTIONAL,
    ...
}

MBMS-Bearer-Service-List-Item-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Cell-InfEx-Rprt    ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMS-Cell-Item-InfEx-Rprt

MBMS-Cell-Item-InfEx-Rprt   ::= SEQUENCE {
    c-ID                            C-ID,
    requestedDataValueInformation   RequestedDataValueInformation,
    iE-Extensions                   ProtocolExtensionContainer  { { MBMS-Cell-Item-InfEx-Rprt-ExtIEs} }   OPTIONAL,
    ...
}

MBMS-Cell-Item-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
```

```
-- INFORMATION EXCHANGE TERMINATION REQUEST
--
-- **************************************************************

InformationExchangeTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeTerminationRequest-Extensions}}    OPTIONAL,
    ...
}

InformationExchangeTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID            CRITICALITY     ignore              TYPE    InformationExchangeID        PRESENCE mandatory},
    ...
}

InformationExchangeTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- INFORMATION EXCHANGE FAILURE INDICATION
--
-- **************************************************************

InformationExchangeFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeFailureIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{InformationExchangeFailureIndication-Extensions}}          OPTIONAL,
    ...
}

InformationExchangeFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID            CRITICALITY ignore          TYPE    InformationExchangeID       PRESENCE mandatory   }|
    { ID    id-Cause                            CRITICALITY ignore          TYPE    Cause                       PRESENCE mandatory   },
    ...
}

InformationExchangeFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RESET REQUEST
--
-- **************************************************************

ResetRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{ResetRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResetRequest-Extensions}}     OPTIONAL,
    ...
}
```

```
ResetRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RNC-ID              CRITICALITY reject  TYPE RNC-ID     PRESENCE mandatory} |
    { ID id-ResetIndicator      CRITICALITY reject      TYPE    ResetIndicator      PRESENCE    mandatory},
    ...
}

ResetRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID             CRITICALITY reject  EXTENSION Extended-RNC-ID       PRESENCE optional},
    ...
}

ResetIndicator ::= CHOICE {
    context         ContextList-Reset,
    all-contexts        NULL,
    ...,
    contextGroup    ContextGroupList-Reset
}

ContextList-Reset ::= SEQUENCE {
    contextInfoList-Reset       ContextInfoList-Reset,
    iE-Extensions                           ProtocolExtensionContainer  { {ContextItem-Reset-ExtIEs} }     OPTIONAL,
    ...
}

ContextItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContext)) OF ProtocolIE-Single-Container {{ ContextInfoItemIE-Reset }}

ContextInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextInfoItem-Reset        CRITICALITY reject      TYPE ContextInfoItem-Reset      PRESENCE mandatory}
}

ContextInfoItem-Reset ::= SEQUENCE {
    contextType-Reset           ContextType-Reset,
    iE-Extensions               ProtocolExtensionContainer  { { ContextInfoItem-Reset-ExtIEs} }   OPTIONAL,
    ...
}

ContextInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContextType-Reset ::= CHOICE {
    sRNTI           S-RNTI,
    dRNTI           D-RNTI,
    ...
}

ContextGroupList-Reset ::= SEQUENCE {
    contextGroupInfoList-Reset      ContextGroupInfoList-Reset,
    iE-Extensions                   ProtocolExtensionContainer  { {ContextGroupItem-Reset-ExtIEs} }     OPTIONAL,
    ...
```

```
}

ContextGroupItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContextGroupInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContextGroup))   OF ProtocolIE-Single-Container {{ ContextGroupInfoItemIE-Reset }}

ContextGroupInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextGroupInfoItem-Reset       CRITICALITY reject      TYPE ContextGroupInfoItem-Reset     PRESENCE mandatory}
}

ContextGroupInfoItem-Reset ::= SEQUENCE {
    s-RNTI-Group                S-RNTI-Group,
    iE-Extensions               ProtocolExtensionContainer  { { ContextGroupInfoItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

ContextGroupInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RESET RESPONSE
--
-- **************************************************************

ResetResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{ResetResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResetResponse-Extensions}}            OPTIONAL,
    ...
}

ResetResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RNC-ID              CRITICALITY ignore  TYPE RNC-ID     PRESENCE mandatory} |
    { ID id-CriticalityDiagnostics      CRITICALITY     ignore      TYPE    CriticalityDiagnostics      PRESENCE optional},
    ...
}

ResetResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID             CRITICALITY reject  EXTENSION Extended-RNC-ID       PRESENCE optional},
    ...
}

-- **************************************************************
--
-- RADIO LINK ACTIVATION COMMAND FDD
--
-- **************************************************************

RadioLinkActivationCommandFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkActivationCommandFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkActivationCommandFDD-Extensions}}      OPTIONAL,
```

```
    ...
}

RadioLinkActivationCommandFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationList-RL-ActivationCmdFDD       CRITICALITY ignore  TYPE    DelayedActivationInformationList-RL-ActivationCmdFDD
    PRESENCE    mandatory   },
    ...
}

RadioLinkActivationCommandFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdFDD-IEs} }

DelayedActivationInformation-RL-ActivationCmdFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdFDD    CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdFDD  PRESENCE
optional    }
}

DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    delayed-activation-update   DelayedActivationUpdate,
    iE-Extensions               ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
    ...
}

DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ACTIVATION COMMAND TDD
--
-- **************************************************************

RadioLinkActivationCommandTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkActivationCommandTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkActivationCommandTDD-Extensions}}      OPTIONAL,
    ...
}

RadioLinkActivationCommandTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationList-RL-ActivationCmdTDD       CRITICALITY ignore  TYPE    DelayedActivationInformationList-RL-ActivationCmdTDD
    PRESENCE    mandatory   },
    ...
}

RadioLinkActivationCommandTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdTDD-IEs} }

DelayedActivationInformation-RL-ActivationCmdTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdTDD    CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdTDD  PRESENCE
optional    }
}

DelayedActivationInformation-RL-ActivationCmdTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    delayed-activation-update   DelayedActivationUpdate,
    iE-Extensions               ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
    ...
}

DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- GERAN UPLINK SIGNALLING TRANSFER INDICATION
--
-- **************************************************************

GERANUplinkSignallingTransferIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{GERANUplinkSignallingTransferIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{GERANUplinkSignallingTransferIndication-Extensions}} OPTIONAL,
    ...
}

GERANUplinkSignallingTransferIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UC-ID                       CRITICALITY ignore  TYPE UC-ID                          PRESENCE mandatory }  |
    -- UC-Id may be GERAN cell identifier.
    { ID id-SAI                         CRITICALITY ignore  TYPE SAI                           PRESENCE mandatory }  |
    { ID id-S-RNTI                      CRITICALITY ignore  TYPE S-RNTI                        PRESENCE mandatory }  |
    { ID id-D-RNTI                      CRITICALITY ignore  TYPE D-RNTI                        PRESENCE optional  }  |
    { ID id-L3-Information              CRITICALITY ignore  TYPE L3-Information                PRESENCE mandatory }  |
    { ID id-CN-PS-DomainIdentifier      CRITICALITY ignore  TYPE CN-PS-DomainIdentifier        PRESENCE optional  }  |
    { ID id-CN-CS-DomainIdentifier      CRITICALITY ignore  TYPE CN-CS-DomainIdentifier        PRESENCE optional  }  |
    { ID id-URA-Information             CRITICALITY ignore  TYPE URA-Information               PRESENCE optional  },
    -- URA information may be GRA information
    ...
}

GERANUplinkSignallingTransferIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
--
-- **************************************************************
```

```
RadioLinkParameterUpdateIndicationFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkParameterUpdateIndicationFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkParameterUpdateIndicationFDD-Extensions}}          OPTIONAL,
    ...
}

RadioLinkParameterUpdateIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-HSDSCH-FDD-Update-Information                        CRITICALITY ignore  TYPE    HSDSCH-FDD-Update-Information        PRESENCE
    optional}|
    { ID    id-RL-ParameterUpdateIndicationFDD-RL-InformationList   CRITICALITY ignore  TYPE    RL-ParameterUpdateIndicationFDD-RL-InformationList
        PRESENCE optional   },
    ...
}

RL-ParameterUpdateIndicationFDD-RL-InformationList ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { { RL-
ParameterUpdateIndicationFDD-RL-InformationList-IEs} }

RL-ParameterUpdateIndicationFDD-RL-InformationList-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ParameterUpdateIndicationFDD-RL-Information-Item     CRITICALITY ignore  TYPE RL-ParameterUpdateIndicationFDD-RL-Information-Item
    PRESENCE mandatory  }
}

RL-ParameterUpdateIndicationFDD-RL-Information-Item::= SEQUENCE {
    rL-ID                               RL-ID,
    phase-Reference-Update-Indicator    Phase-Reference-Update-Indicator    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs} } OPTIONAL,
    ...
}

RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkParameterUpdateIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Update-Information    CRITICALITY ignore      EXTENSION E-DCH-FDD-Update-Information PRESENCE optional }|
    { ID id-Additional-HS-Cell-Information-RL-Param-Upd CRITICALITY ignore      EXTENSION Additional-HS-Cell-Information-RL-Param-Upd   PRESENCE
optional }|
    { ID id-Additional-EDCH-Cell-Information-RL-Param-Upd   CRITICALITY ignore      EXTENSION Additional-EDCH-Cell-Information-RL-Param-Upd
    PRESENCE optional },
    ...
}

Additional-HS-Cell-Information-RL-Param-Upd ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Additional-HS-Cell-Information-RL-Param-Upd-ItemIEs



Additional-HS-Cell-Information-RL-Param-Upd-ItemIEs ::=SEQUENCE{
    hSPDSCH-RL-ID                                   RL-ID,
    hS-DSCH-FDD-Secondary-Serving-Update-Information    HS-DSCH-FDD-Secondary-Serving-Update-Information,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-HS-Cell-Information-RL-Setup-ExtIEs} } OPTIONAL,
    ...
}
```

```
Additional-HS-Cell-Information-RL-Setup-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-RL-Param-Upd   ::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF Additional-EDCH-Cell-Information-RL-Param-Upd-ItemIEs

Additional-EDCH-Cell-Information-RL-Param-Upd-ItemIEs   ::=SEQUENCE{
    additional-EDCH-FDD-Update-Information                                  Additional-EDCH-FDD-Update-Information,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-FDD-Update-Information-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-FDD-Update-Information-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION TDD
--
-- **************************************************************

RadioLinkParameterUpdateIndicationTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkParameterUpdateIndicationTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkParameterUpdateIndicationTDD-Extensions}}          OPTIONAL,
    ...
}

RadioLinkParameterUpdateIndicationTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-HSDSCH-TDD-Update-Information        CRITICALITY     ignore      TYPE    HSDSCH-TDD-Update-Information       PRESENCE optional},
    ...
}

RadioLinkParameterUpdateIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UE MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

UEMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UEMeasurementInitiationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementInitiationRequest-Extensions}}                  OPTIONAL,
    ...
}

UEMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime                  CRITICALITY reject  TYPE AllowedQueuingTime                 PRESENCE optional    } |
    { ID id-MeasurementID                       CRITICALITY reject  TYPE MeasurementID                      PRESENCE mandatory   } |
    { ID id-UEMeasurementType                   CRITICALITY reject  TYPE UEMeasurementType                  PRESENCE mandatory   } |
    { ID id-UEMeasurementTimeslotInfoHCR        CRITICALITY reject  TYPE UEMeasurementTimeslotInfoHCR       PRESENCE optional    } |
```

```
    { ID id-UEMeasurementTimeslotInfoLCR        CRITICALITY reject  TYPE UEMeasurementTimeslotInfoLCR        PRESENCE optional    } |
    { ID id-MeasurementFilterCoefficient        CRITICALITY reject  TYPE MeasurementFilterCoefficient        PRESENCE optional    } |
    { ID id-UEMeasurementReportCharacteristics  CRITICALITY reject  TYPE UEMeasurementReportCharacteristics  PRESENCE mandatory   } |
    { ID id-UEMeasurementParameterModAllow      CRITICALITY reject  TYPE UEMeasurementParameterModAllow      PRESENCE mandatory   },
    ...
}

UEMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UEMeasurementTimeslotInfo768               CRITICALITY reject  EXTENSION UEMeasurementTimeslotInfo768  PRESENCE optional},
    ...
}

-- **************************************************************
--
-- UE MEASUREMENT INITIATION RESPONSE
--
-- **************************************************************

UEMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UEMeasurementInitiationResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementInitiationResponse-Extensions}}                  OPTIONAL,
    ...
}

UEMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                       CRITICALITY ignore  TYPE MeasurementID                       PRESENCE mandatory   } |
    { ID id-MeasurementFilterCoefficient        CRITICALITY reject  TYPE MeasurementFilterCoefficient        PRESENCE optional    } |
    { ID id-UEMeasurementReportCharacteristics  CRITICALITY reject  TYPE UEMeasurementReportCharacteristics  PRESENCE optional    } |
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics              PRESENCE optional },
    ...
}

UEMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UE MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

UEMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UEMeasurementInitiationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementInitiationFailure-Extensions}}                  OPTIONAL,
    ...
}

UEMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                   CRITICALITY ignore  TYPE MeasurementID                   PRESENCE mandatory   } |
    { ID id-Cause                           CRITICALITY ignore  TYPE Cause                           PRESENCE mandatory   } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics          PRESENCE optional },
    ...
}
```

```
UEMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UE MEASUREMENT REPORT
--
-- **************************************************************

UEMeasurementReport ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UEMeasurementReport-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementReport-Extensions}}                   OPTIONAL,
    ...
}

UEMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                   CRITICALITY ignore  TYPE MeasurementID                      PRESENCE mandatory   } |
    { ID id-UEMeasurementValueInformation   CRITICALITY ignore  TYPE UEMeasurementValueInformation      PRESENCE mandatory   },
    ...
}

UEMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UE MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

UEMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UEMeasurementTerminationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementTerminationRequest-Extensions}}                   OPTIONAL,
    ...
}

UEMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   },
    ...
}

UEMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UE MEASUREMENT FAILURE INDICATION
--
-- **************************************************************
```

```
UEMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UEMeasurementFailureIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementFailureIndication-Extensions}}                  OPTIONAL,
    ...
}

UEMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   } |
    { ID id-Cause                       CRITICALITY ignore  TYPE Cause                      PRESENCE mandatory   },
    ...
}

UEMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- IUR INVOKE TRACE
--
-- **************************************************************

IurInvokeTrace ::= SEQUENCE {
    protocolIEs                             ProtocolIE-Container        {{IurInvokeTrace-IEs}},
    protocolExtensions                      ProtocolExtensionContainer  {{IurInvokeTrace-Extensions}}    OPTIONAL,
    ...
}

IurInvokeTrace-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                          CRITICALITY ignore  TYPE D-RNTI                             PRESENCE optional    }|
    { ID id-TraceReference                  CRITICALITY ignore  TYPE TraceReference                     PRESENCE mandatory   }|
    { ID id-UEIdentity                      CRITICALITY ignore  TYPE UEIdentity                         PRESENCE mandatory   }|
    { ID id-TraceRecordingSessionReference  CRITICALITY ignore  TYPE TraceRecordingSessionReference     PRESENCE mandatory   }|
    { ID id-ListOfInterfacesToTrace         CRITICALITY ignore  TYPE ListOfInterfacesToTrace            PRESENCE optional    }|
    { ID id-TraceDepth                      CRITICALITY ignore  TYPE TraceDepth                         PRESENCE mandatory   },
    ...
}

ListOfInterfacesToTrace ::= SEQUENCE (SIZE (1..maxNrOfInterfaces)) OF ProtocolIE-Single-Container {{ InterfacesToBeTracedItemIE }}

InterfacesToBeTracedItemIE RNSAP-PROTOCOL-IES ::= {
    { ID id-InterfacesToTraceItem           CRITICALITY ignore  TYPE InterfacesToTraceItem          PRESENCE mandatory   }
}

InterfacesToTraceItem ::= SEQUENCE {
    interface               ENUMERATED {iub,iur,...},
    iE-Extensions           ProtocolExtensionContainer { {InterfacesToTraceItem-ExtIEs} }   OPTIONAL,
    ...
}

InterfacesToTraceItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
IurInvokeTrace-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- IUR DEACTIVATE TRACE
--
-- **************************************************************

IurDeactivateTrace ::= SEQUENCE {
    protocolIEs                             ProtocolIE-Container        {{IurDeactivateTrace-IEs}},
    protocolExtensions                      ProtocolExtensionContainer  {{IurDeactivateTrace-Extensions}} OPTIONAL,
    ...
}

IurDeactivateTrace-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                          CRITICALITY ignore  TYPE D-RNTI                         PRESENCE optional    }|
    { ID id-TraceReference                  CRITICALITY ignore  TYPE TraceReference                 PRESENCE mandatory   },
    ...
}

IurDeactivateTrace-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- MBMS ATTACH COMMAND
--
-- **************************************************************

MBMSAttachCommand ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{MBMSAttachCommand-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{MBMSAttachCommand-Extensions}}        OPTIONAL,
    ...
}

MBMSAttachCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MBMS-Bearer-Service-List        CRITICALITY     ignore      TYPE MBMS-Bearer-Service-List PRESENCE   mandatory} |
    { ID id-UE-State                        CRITICALITY     ignore      TYPE    UE-State            PRESENCE optional},
    ...
}

MBMSAttachCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- MBMS DETACH COMMAND
--
-- **************************************************************
```

```
MBMSDetachCommand ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{MBMSDetachCommand-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{MBMSDetachCommand-Extensions}}        OPTIONAL,
    ...
}

MBMSDetachCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MBMS-Bearer-Service-List    CRITICALITY     ignore      TYPE MBMS-Bearer-Service-List PRESENCE mandatory} |
    { ID id-UE-State                    CRITICALITY     ignore      TYPE    UE-State              PRESENCE optional},
    ...
}

MBMSDetachCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DIRECT INFORMATION TRANSFER
--
-- **************************************************************

DirectInformationTransfer ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{DirectInformationTransfer-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DirectInformationTransfer-Extensions}}                    OPTIONAL,
    ...
}

DirectInformationTransfer-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RNC-ID                          CRITICALITY ignore  TYPE RNC-ID                         PRESENCE mandatory} |
    { ID id-ProvidedInformation             CRITICALITY ignore  TYPE ProvidedInformation            PRESENCE mandatory} ,
    ...
}

DirectInformationTransfer-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID                 CRITICALITY reject  EXTENSION Extended-RNC-ID   PRESENCE optional },
    ...
}

-- **************************************************************
--
-- ENHANCED RELOCATION REQUEST
--
-- **************************************************************

EnhancedRelocationRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{EnhancedRelocationRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{EnhancedRelocationRequest-Extensions}}                 OPTIONAL,
    ...
}

EnhancedRelocationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause               CRITICALITY reject  TYPE Cause                  PRESENCE mandatory   } |
```

```
    { ID id-Permanent-NAS-UE-Identity   CRITICALITY reject  TYPE Permanent-NAS-UE-Identity   PRESENCE mandatory } |
    { ID id-SRNC-ID     CRITICALITY reject  TYPE RNC-ID PRESENCE optional   }|
    -- This IE shall be present if the Relocation type IE is set to "UE involved in relocation of SRNS" --
    { ID id-Extended-SRNC-ID    CRITICALITY reject  TYPE Extended-RNC-ID     PRESENCE optional }|
    { ID id-S-RNTI      CRITICALITY reject  TYPE S-RNTI PRESENCE mandatory  }|
    { ID id-RANAP-EnhancedRelocationInformationRequest      CRITICALITY reject  TYPE RANAP-EnhancedRelocationInformationRequest   PRESENCE
mandatory   },
    ...
}

EnhancedRelocationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- ENHANCED RELOCATION RESPONSE
--
-- **************************************************************

EnhancedRelocationResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{EnhancedRelocationResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{EnhancedRelocationResponse-Extensions}}                   OPTIONAL,
    ...
}

EnhancedRelocationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RANAP-EnhancedRelocationInformationResponse     CRITICALITY ignore  TYPE RANAP-EnhancedRelocationInformationResponse     PRESENCE
mandatory   },
    ...
}

EnhancedRelocationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- ENHANCED RELOCATION FAILURE
--
-- **************************************************************

EnhancedRelocationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{EnhancedRelocationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{EnhancedRelocationFailure-Extensions}}                   OPTIONAL,
    ...
}

EnhancedRelocationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause       CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}
```

```
EnhancedRelocationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- ENHANCED RELOCATION CANCEL
--
-- **************************************************************

EnhancedRelocationCancel ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{EnhancedRelocationCancel-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{EnhancedRelocationCancel-Extensions}}                  OPTIONAL,
    ...
}

EnhancedRelocationCancel-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause       CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  },
    ...
}

EnhancedRelocationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- ENHANCED RELOCATION SIGNALLING TRANSFER
--
-- **************************************************************

EnhancedRelocationSignallingTransfer ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{EnhancedRelocationSignallingTransfer-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{EnhancedRelocationSignallingTransfer-Extensions}}                  OPTIONAL,
    ...
}

EnhancedRelocationSignallingTransfer-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-L3-Information      CRITICALITY ignore  TYPE L3-Information                 PRESENCE mandatory },
    ...
}

EnhancedRelocationSignallingTransfer-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- ENHANCED RELOCATION RELEASE
--
-- **************************************************************

EnhancedRelocationRelease ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{EnhancedRelocationRelease-IEs}},
```

```
    protocolExtensions              ProtocolExtensionContainer {{EnhancedRelocationRelease-Extensions}}                 OPTIONAL,
    ...
}

EnhancedRelocationRelease-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Released-CN-Domain      CRITICALITY ignore  TYPE Released-CN-Domain                PRESENCE mandatory  },
    ...
}

EnhancedRelocationRelease-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- MBSFN MCCH INFORMATION
--
-- **************************************************************

MBSFNMCCHInformation ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{MBSFNMCCHInformation-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{MBSFNMCCHInformation-Extensions}}     OPTIONAL,
    ...
}

MBSFNMCCHInformation-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MBSFN-Cluster-Identity  CRITICALITY     ignore      TYPE MBSFN-Cluster-Identity PRESENCE mandatory} |
    { ID id-MCCH-Message-List   CRITICALITY     reject      TYPE MCCH-Message-List PRESENCE mandatory} |
    { ID id-CFN  CRITICALITY    reject      TYPE CFN PRESENCE   mandatory}|
    { ID id-MCCH-Configuration-Info         CRITICALITY     ignore      TYPE    MCCH-Configuration-Info         PRESENCE optional}|
    { ID id-MBSFN-Scheduling-Transmission-Time-Interval-Info-List   CRITICALITY     ignore      TYPE MBSFN-Scheduling-Transmission-Time-Interval-
Info-List PRESENCE  optional},
    ...
}

MBSFNMCCHInformation-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- SECONDARY UL FREQUENCY REPORT
--
-- **************************************************************

SecondaryULFrequencyReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{SecondaryULFrequencyReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{SecondaryULFrequencyReport-Extensions}}      OPTIONAL,
    ...
}

SecondaryULFrequencyReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-ActivationInformation   CRITICALITY     ignore      TYPE ActivationInformation      PRESENCE mandatory },
    ...
```

```
}

SecondaryULFrequencyReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- SECONDARY UL FREQUENCY UPDATE INDICATION
--
-- **************************************************************

SecondaryULFrequencyUpdateIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{SecondaryULFrequencyUpdateIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{SecondaryULFrequencyUpdateIndication-Extensions}}           OPTIONAL,
    ...
}


SecondaryULFrequencyUpdateIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-ActivationInformation   CRITICALITY     ignore      TYPE ActivationInformation      PRESENCE mandatory },
    ...
}

SecondaryULFrequencyUpdateIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- PRIVATE MESSAGE
--
-- **************************************************************

PrivateMessage ::= SEQUENCE {
    privateIEs      PrivateIE-Container  {{PrivateMessage-IEs}},
    ...
}

PrivateMessage-IEs RNSAP-PRIVATE-IES ::= {
    ...
}

END
```

## 9.3.4 Information Element Definitions

```
-- **************************************************************
--
-- Information Element Definitions
--
-- **************************************************************
```

```
RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    maxCellSIB11OrSIB12,
    maxNrOfFACHs,
    maxIBSEG,
    maxCellsMeas,
    maxNoOfDSCHs,
    maxNoOfUSCHs,
    maxNrOfDCHs,
    maxNrOfDL-Codes,
    maxNrOfDLTs,
    maxNrOfDLTsLCR,
    maxNrOfDPCHs,
    maxNrOfDPCHs768,
    maxNrOfDPCHsLCR,
    maxNrOfEDCH-HARQ-PO-QUANTSTEPs,
    maxNrOfEDCHHARQProcesses2msEDCH,
    maxNrOfBits-MACe-PDU-non-scheduled,
    maxNrOfEDPCCH-PO-QUANTSTEPs,
    maxNrOfRefETFCI-PO-QUANTSTEPs,
    maxNrOfRefETFCIs,
    maxNrOfErrors,
    maxNrOfFDDNeighboursPerRNC,
    maxNrOfMACcshSDU-Length,
    maxNrOfNeighbouringRNCs,
    maxNrOfTDDNeighboursPerRNC,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfTS,
    maxNrOfTsLCR,
    maxNrOfULTs,
    maxNrOfULTsLCR,
    maxNrOfGSMNeighboursPerRNC,
    maxRateMatching,
    maxNrOfPoints,
    maxNoOfRB,
    maxNrOfRLs,
    maxNrOfTFCs,
    maxNrOfTFs,
    maxCTFC,
    maxRNCinURA-1,
    maxNrOfSCCPCHs,
    maxNrOfSCCPCHs768,
    maxTGPS,
    maxTTI-Count,
    maxNoGPSTypes,
    maxNoSat,
```

```
    maxNrOfActiveMBMSServices,
    maxNrOfCells,
    maxNrOfSNAs,
    maxNrOfHARQProc,
    maxNrOfHSSCCHCodes,
    maxNrOfMACdFlows,
    maxNrOfMACdFlows-1,
    maxNrOfMACdPDUSize,
    maxNrOfMBMSL3,
    maxNrOfMCCHMessages,
    maxNrOfEDCHMACdFlows,
    maxNrOfEDCHMACdFlows-1,
    maxNrOfEDCHMACdFlowsLCR,
    maxNrOfEDCHMACdFlowsLCR-1,
    maxNrOfMBMSServices,
    maxNrOfPDUIndexes,
    maxNrOfPDUIndexes-1,
    maxNrOfPrioQueues,
    maxNrOfPrioQueues-1,
    maxNrOfSatAlmanac-maxNoSat,
    maxNrOfGERANSI,
    maxNrofSigSeqERGHICH-1,
    maxNrOfUEs,
    maxNrOfAddFreq,
    maxNrOfCellsPerFreq,
    maxNoOfLogicalChannels,
    maxNrOfRefBetas,
    maxNrOfEAGCHCodes,
    maxNrOfHS-DSCHTBSs,
    maxNrOfHS-DSCHTBSs-HS-SCCHless,
    maxHS-PDSCHCodeNrComp-1,
    maxNrOfEHICHCodes,
    maxGANSSSat,
    maxNoGANSS,
    maxSgnType,
    maxNrOfBroadcastPLMNs,
    maxHSDPAFrequency,
    maxHSDPAFrequency-1,
    maxFrequencyinCell,
    maxFrequencyinCell-1,
    maxGANSSSatAlmanac,
    maxGANSSClockMod,
    maxNrOfEDCHRLs,
    maxNrOfEUTRANeighboursPerRNC,
    maxEARFCN,
    maxNrOfPreconfiguredNeighbours,
    maxNrOfHSDSCH-1,
    maxNrOfHSDSCH,
    maxGANSS-1,
    maxlengthMBMSconcatservlists,
    maxNoOfTBSs-Mapping-HS-DSCH-SPS,
    maxNoOfTBSs-Mapping-HS-DSCH-SPS-1,
    maxNoOfHS-DSCH-TBSsLCR,
    maxNoOfRepetition-Period-LCR,
```

```
    maxNoOfRepetitionPeriod-SPS-LCR-1,
    maxNoOf-HS-SICH-SPS,
    maxNoOf-HS-SICH-SPS-1,
    maxNoOfNon-HS-SCCH-Assosiated-HS-SICH,
    maxNrOfEDCH-1,
    maxNrOfDCHMeasurementOccasionPatternSequence,


    id-Allowed-Rate-Information,
    id-AntennaColocationIndicator,
    id-BindingID,
    id-Cell-Capacity-Class-Value,
    id-CellCapabilityContainer-FDD,
    id-CellCapabilityContainer-TDD,
    id-CellCapabilityContainer-TDD-LCR,
    id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information,
    id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response,
    id-Counting-Information,
    id-CoverageIndicator,
    id-DPC-Mode-Change-SupportIndicator,
    id-E-DCH-Minimum-Set-E-TFCIValidityIndicator,
    id-E-RGCH-E-HICH-ChannelisationCodeValidityIndicator,
    id-Extended-Round-Trip-Time-Value,
    id-ExtendedPropagationDelay,
    id-Extended-SRNC-ID,
    id-Extended-RNC-ID,
    id-GERAN-Cell-Capability,
    id-GERAN-Classmark,
    id-Guaranteed-Rate-Information,
    id-HARQ-Preamble-Mode-Activation-Indicator,
    id-HCS-Prio,
    id-Inter-Frequency-Cell-Information,
    id-Load-Value,
    id-Load-Value-IncrDecrThres,
    id-Neighbouring-GSM-CellInformation,
    id-Neighbouring-UMTS-CellInformationItem,
    id-neighbouring-LCR-TDD-CellInformation,
    id-NRT-Load-Information-Value,
    id-NRT-Load-Information-Value-IncrDecrThres,
    id-OnModification,
    id-Received-Total-Wideband-Power-Value,
    id-Received-Total-Wideband-Power-Value-IncrDecrThres,
    id-RT-Load-Value,
    id-RT-Load-Value-IncrDecrThres,
    id-SFNSFNMeasurementThresholdInformation,
    id-SNA-Information,
    id-TrafficClass,
    id-Transmitted-Carrier-Power-Value,
    id-Transmitted-Carrier-Power-Value-IncrDecrThres,
    id-TUTRANGPSMeasurementThresholdInformation,
    id-UL-Timeslot-ISCP-Value,
    id-UL-Timeslot-ISCP-Value-IncrDecrThres,
    maxNrOfLevels,
    maxNrOfMeasNCell,
```

```
    maxNrOfMeasNCell-1,
    id-MessageStructure,
    id-RestrictionStateIndicator,
    id-Rx-Timing-Deviation-Value-LCR,
    id-TransportLayerAddress,
    id-Transmission-Mode-Information,
    id-TypeOfError,
    id-Angle-Of-Arrival-Value-LCR,
    id-IPDL-TDD-ParametersLCR,
    id-DSCH-InitialWindowSize,
    id-Maximum-DL-Power-TimeslotLCR-InformationItem,
    id-MBMS-Bearer-Service-Full-Address,
    id-MBMS-Neighbouring-Cell-Information,
    id-MBMS-RLC-Sequence-Number-Information,
    id-MBSFN-Cluster-Identity,
    id-MBSFN-Scheduling-Transmission-Time-Interval-Info-List,
    id-MCCH-Configuration-Info,
    id-MCCH-Message-List,
    id-Minimum-DL-Power-TimeslotLCR-InformationItem,
    id-HS-SICH-Reception-Quality,
    id-HS-SICH-Reception-Quality-Measurement-Value,
    id-HS-PDSCH-Code-Change-Grant,
    id-HS-PDSCH-Code-Change-Indicator,
    id-ExtendedGSMCellIndividualOffset,
    id-Unidirectional-DCH-Indicator,
    id-RTLoadValue,
    id-RLC-Sequence-Number,
    id-NRTLoadInformationValue,
    id-Satellite-Almanac-Information-ExtItem,
    id-TnlQos,
    id-UpPTSInterferenceValue,
    id-NACC-Related-Data,
    id-HARQ-Preamble-Mode,
    id-User-Plane-Congestion-Fields-Inclusion,
    id-FrequencyBandIndicator,
    id-PLCCH-Information-UL-TimeslotLCR-Info,
    id-CellCapabilityContainer-TDD768,
    id-hSSCCH-TDD-Specific-InfoList-Response768,
    id-hSPDSCH-TDD-Specific-InfoList-Response768,
    id-Rx-Timing-Deviation-Value-768,
    id-UEMeasurementValueTransmittedPowerList768,
    id-UEMeasurementValueTimeslotISCPList768,
    id-E-DCH-PowerOffset-for-SchedulingInfo,
    id-Rx-Timing-Deviation-Value-ext,
    id-TrCH-SrcStatisticsDescr,
    id-eDCH-MACdFlow-Retransmission-Timer-LCR,
    id-MIMO-ActivationIndicator,
    id-MIMO-InformationResponse,
    id-MIMO-Mode-Indicator,
    id-MIMO-N-M-Ratio,
    id-SixteenQAM-UL-Operation-Indicator,
    id-E-AGCH-Table-Choice,
    id-E-TFCI-Boost-Information,
    id-E-DPDCH-PowerInterpolation,
```

```
    id-HSDSCH-MACdPDUSizeFormat,
    id-MaximumMACdPDU-SizeExtended,
    id-GANSS-Common-Data,
    id-GANSS-Information,
    id-GANSS-Generic-Data,
    id-TUTRANGANSSMeasurementThresholdInformation,
    id-TUTRANGANSSMeasurementValueInformation,
    id-HARQ-MemoryPartitioningInfoExtForMIMO,
    id-Ext-Reference-E-TFCI-PO,
    id-Ext-Max-Bits-MACe-PDU-non-scheduled,
    id-Multiple-PLMN-List,
    id-TransportBearerNotSetupIndicator,
    id-TransportBearerNotRequestedIndicator,
    id-UARFCNforNt,
    id-LCRTDD-uplink-Physical-Channel-Capability,
    id-number-Of-Supported-Carriers,
    id-HSSICH-SIRTarget,
    id-HSSICH-TPC-StepSize,
    id-tSN-Length,
    id-HS-SICH-ID-Extension,
    id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR,
    id-multicarrier-number,
    id-UpPCH-InformationList-LCRTDD,
    id-UpPCH-InformationItem-LCRTDD,
    id-Max-UE-DTX-Cycle,
    id-Default-Serving-Grant-in-DTX-Cycle2,
    id-SixtyfourQAM-UsageAllowedIndicator,
    id-SixtyfourQAM-DL-UsageIndicator,
    id-UE-Capabilities-Info,
    id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory,
    id-Continuous-Packet-Connectivity-HS-SCCH-Less-Deactivate-Indicator,
    id-E-DCH-MACdPDUSizeFormat,
    id-E-PUCH-PowerControlGAP,
    id-MaximumNumber-Of-Retransmission-For-SchedulingInfo-LCRTDD,
    id-E-DCH-RetransmissionTimer-For-SchedulingInfo-LCRTDD,
    id-HSDSCH-TBSizeTableIndicator,
    id-E-DCH-DL-Control-Channel-Change-Information,
    id-E-DCH-DL-Control-Channel-Grant-Information,
    id-DGANSS-Corrections-Req,
    id-UE-with-enhanced-HS-SCCH-support-indicator,
    id-EnhancedHSServingCC-Abort,
    id-GANSS-Time-ID,
    id-GANSS-AddIonoModelReq,
    id-GANSS-EarthOrientParaReq,
    id-GANSS-AddNavigationModelsReq,
    id-GANSS-AddUTCModelsReq,
    id-GANSS-AuxInfoReq,
    id-GANSS-SBAS-ID,
    id-GANSS-ID,
    id-GANSS-Additional-Ionospheric-Model,
    id-GANSS-Earth-Orientation-Parameters,
    id-GANSS-Additional-Time-Models,
    id-GANSS-Additional-Navigation-Models,
```

```
    id-GANSS-Additional-UTC-Models,
    id-GANSS-Auxiliary-Information,
    id-GANSS-alm-keplerianNAVAlmanac,
    id-GANSS-alm-keplerianReducedAlmanac,
    id-GANSS-alm-keplerianMidiAlmanac,
    id-GANSS-alm-keplerianGLONASS,
    id-GANSS-alm-ecefSBASAlmanac,
    id-Secondary-Serving-Cell-List,
    id-MinimumReducedE-DPDCH-GainFactor,
    id-E-AGCH-UE-Inactivity-Monitor-Threshold,
    id-MACes-Maximum-Bitrate-LCR,
    id-MultiCarrier-HSDSCH-Physical-Layer-Category,
    id-MIMO-SFMode-For-HSPDSCHDualStream,
    id-MIMO-SFMode-Supported-For-HSPDSCHDualStream,
    id-MIMO-ReferenceSignal-InformationListLCR,
    id-DL-RLC-PDU-Size-Format,
    id-UE-SupportIndicatorExtension,
    id-power-offset-for-S-CPICH-for-MIMO,
    id-power-offset-for-S-CPICH-for-MIMO-Request-Indicator,
    id-Dual-Band-Secondary-Serving-Cell-List,
    id-Single-Stream-MIMO-ActivationIndicator,
    id-Single-Stream-MIMO-Mode-Indicator,
    id-Additional-EDCH-Preconfiguration-Information,
    id-MulticellEDCH-Information,
    id-EDCH-Indicator,
    id-DiversityMode,
    id-TransmitDiversityIndicator,
    id-NonCellSpecificTxDiversity,
    id-CellCapabilityContainerExtension-FDD,
    id-HSDSCH-Physical-Layer-Category,
    id-TS0-HS-PDSCH-Indication-LCR,
    id-UE-TS0-CapabilityLCR,
    id-DGNSS-ValidityPeriod,
    id-UE-AggregateMaximumBitRate-Enforcement-Indicator,
    id-Out-of-Sychronization-Window,
    id-MulticellEDCH-RL-SpecificInformation,
    id-Continuous-Packet-Connectivity-DTX-DRX-Information,
    id-Additional-E-DCH-Non-Serving-RL-Preconfiguration-Setup,
    id-Additional-E-DCH-New-non-serving-RL-E-DCH-FDD-DL-Control-Channel-InfoList,
    id-CellListValidityIndicator


FROM RNSAP-Constants

    Criticality,
    ProcedureID,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM RNSAP-CommonDataTypes

    ProtocolIE-Single-Container{},
    ProtocolExtensionContainer{},
```

```
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;

-- A

AccessPointName     ::= OCTET STRING (SIZE (1..255))

AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1

ActivationInformation ::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF ActivationInformationItem

ActivationInformationItem ::= SEQUENCE {
    uU-ActivationState  Uu-ActivationState,
    iE-Extensions                                   ProtocolExtensionContainer { { ActivationInformationItem-ExtIEs} }         OPTIONAL,
    ...
}

ActivationInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Active-MBMS-Bearer-Service-ListFDD  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemFDD

Active-MBMS-Bearer-Service-ListFDD-PFL  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemFDD-PFL

Active-MBMS-Bearer-Service-ListTDD  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemTDD

Active-MBMS-Bearer-Service-ListTDD-PFL  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemTDD-PFL

Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN        CFN,
    transmission-Gap-Pattern-Sequence-Status    Transmission-Gap-Pattern-Sequence-Status-List     OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    ...
}

Active-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-Response-RLAddList ::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF Additional-EDCH-Cell-Information-Response-RLAdd-
ItemIEs

Additional-EDCH-Cell-Information-Response-RLAdd-ItemIEs ::=SEQUENCE{
    additional-EDCH-FDD-Information-Response                        Additional-EDCH-FDD-Information-Response-ItemIEs  OPTIONAL,
    additional-EDCH-Serving-Cell-Change-Information-Response-RLAdd      E-DCH-Serving-cell-change-informationResponse    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-Cell-Information-Response-RLAdd-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}
```

```
Additional-EDCH-Cell-Information-Response-RLAdd-ItemIEs-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Setup-Info  ::=SEQUENCE{
    multicell-EDCH-Transport-Bearer-Mode                                    Multicell-EDCH-Transport-Bearer-Mode,
    additional-EDCH-Cell-Information-Setup                                  Additional-EDCH-Cell-Information-Setup,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-Setup-Info-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-Setup-Info-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multicell-EDCH-Transport-Bearer-Mode ::= ENUMERATED {
    separate-Iur-Transport-Bearer-Mode,
    uL-Flow-Multiplexing-Mode
}

Additional-EDCH-Cell-Information-Setup  ::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF Additional-EDCH-FDD-Setup-Cell-Information

Additional-EDCH-FDD-Setup-Cell-Information  ::=SEQUENCE{
    additional-EDCH-UL-DPCH-Information-Setup                               Additional-EDCH-UL-DPCH-Information-Setup,
    additional-EDCH-RL-Specific-Information-To-Setup                        Additional-EDCH-RL-Specific-Information-To-Setup-List,
    additional-EDCH-FDD-Information                                         Additional-EDCH-FDD-Information   OPTIONAL,
    additional-EDCH-F-DPCH-Information-Setup                                Additional-EDCH-F-DPCH-Information,
    multicellEDCH-Information                                               MulticellEDCH-Information   OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-FDD-Setup-Cell-Information-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-FDD-Setup-Cell-Information-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-UL-DPCH-Information-Setup   ::=SEQUENCE{
    ul-ScramblingCode                       UL-ScramblingCode,
    ul-SIR-Target                           UL-SIR      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-UL-DPCH-Information-Setup-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-UL-DPCH-Information-Setup-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-F-DPCH-Information  ::=SEQUENCE{
    fdd-TPC-DownlinkStepSize            FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease                LimitedPowerIncrease,
    innerLoopDLPCStatus                 InnerLoopDLPCStatus,
    f-DPCH-SlotFormatSupportRequest     F-DPCH-SlotFormatSupportRequest         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-F-DPCH-Information-ExtIEs} } OPTIONAL,
```

```
    ...
}

Additional-EDCH-F-DPCH-Information-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-RL-Specific-Information-To-Setup-List   ::= SEQUENCE (SIZE (1.. maxNrOfEDCHRLs)) OF Additional-EDCH-RL-Specific-Information-To-
Setup-ItemIEs

Additional-EDCH-RL-Specific-Information-To-Setup-ItemIEs    ::=SEQUENCE{
    eDCH-Additional-RL-ID               RL-ID,
    c-ID                                C-ID                OPTIONAL,
    firstRLS-indicator                  FirstRLS-Indicator,
    propagationDelay                    PropagationDelay              OPTIONAL,
    initialDL-transmissionPower         DL-Power               OPTIONAL,
    primaryCPICH-EcNo                   PrimaryCPICH-EcNo           OPTIONAL,
    e-AGCH-PowerOffset                  E-AGCH-PowerOffset                          OPTIONAL,
    e-RGCH-PowerOffset                  E-RGCH-PowerOffset                          OPTIONAL,
    e-HICH-PowerOffset                  E-HICH-PowerOffset                          OPTIONAL,
    additional-EDCH-MAC-d-Flows-Specific-Info-List      Additional-EDCH-MAC-d-Flows-Specific-Info-List    OPTIONAL,
    multicellEDCH-RL-SpecificInformation        MulticellEDCH-RL-SpecificInformation    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Additional-EDCH-RL-Specific-Information-To-Setup-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-RL-Specific-Information-To-Setup-ItemIEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-To-Add-List    ::= SEQUENCE (SIZE (1.. maxNrOfEDCH-1)) OF Additional-EDCH-Cell-Information-To-Add-ItemIEs

Additional-EDCH-Cell-Information-To-Add-ItemIEs::=SEQUENCE{
    additional-EDCH-UL-DPCH-Information-Setup               Additional-EDCH-UL-DPCH-Information-Addition,
    additional-EDCH-RL-Specific-Information-To-Add-List     Additional-EDCH-RL-Specific-Information-To-Add-List,
    additional-EDCH-FDD-Information                 Additional-EDCH-FDD-Information     OPTIONAL,
    multicellEDCH-Information                       MulticellEDCH-Information       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Additional-EDCH-Cell-Information-To-Add-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-Cell-Information-To-Add-ItemIEs-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-UL-DPCH-Information-Addition    ::=SEQUENCE{
    ul-SIR-Target                           UL-SIR,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-UL-DPCH-Information-Addition-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-UL-DPCH-Information-Addition-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Additional-EDCH-RL-Specific-Information-To-Add-List     ::= SEQUENCE (SIZE (1.. maxNrOfEDCHRLs)) OF Additional-EDCH-RL-Specific-Information-To-Add-
ItemIEs

Additional-EDCH-RL-Specific-Information-To-Add-ItemIEs  ::=SEQUENCE{
    eDCH-Additional-RL-ID               RL-ID,
    c-ID                                C-ID,
    primaryCPICH-EcNo                   PrimaryCPICH-EcNo           OPTIONAL,
    e-AGCH-PowerOffset                  E-AGCH-PowerOffset                          OPTIONAL,
    e-RGCH-PowerOffset                  E-RGCH-PowerOffset                          OPTIONAL,
    e-HICH-PowerOffset                  E-HICH-PowerOffset                          OPTIONAL,
    additional-EDCH-MAC-d-Flows-Specific-Info-List      Additional-EDCH-MAC-d-Flows-Specific-Info-List    OPTIONAL,
    multicellEDCH-RL-SpecificInformation        MulticellEDCH-RL-SpecificInformation        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Additional-EDCH-RL-Specific-Information-To-Add-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-RL-Specific-Information-To-Add-ItemIEs-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-RL-Specific-Information-To-Modify-List  ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF Additional-EDCH-RL-Specific-Information-To-
Modify-ItemIEs

Additional-EDCH-RL-Specific-Information-To-Modify-ItemIEs   ::=SEQUENCE{
    eDCH-Additional-RL-ID               RL-ID,
    e-AGCH-PowerOffset                  E-AGCH-PowerOffset                          OPTIONAL,
    e-RGCH-PowerOffset                  E-RGCH-PowerOffset                          OPTIONAL,
    e-HICH-PowerOffset                  E-HICH-PowerOffset                          OPTIONAL,
    additional-EDCH-MAC-d-Flows-Specific-Info-List      Additional-EDCH-MAC-d-Flows-Specific-Info-List    OPTIONAL,
    multicellEDCH-RL-SpecificInformation        MulticellEDCH-RL-SpecificInformation        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Additional-EDCH-RL-Specific-Information-To-Modify-ItemIEs-ExtIEs} }
OPTIONAL,
    ...
}

Additional-EDCH-RL-Specific-Information-To-Modify-ItemIEs-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-FDD-Information ::=SEQUENCE{
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                                OPTIONAL,
    e-DCH-Maximum-Bitrate                           E-DCH-Maximum-Bitrate                                           OPTIONAL,
    e-DCH-Processing-Overload-Level                 E-DCH-Processing-Overload-Level                                 OPTIONAL,
    e-DCH-Min-Set-E-TFCI                            E-TFCI                                                          OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Additional-EDCH-FDD-Information-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-FDD-Information-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-MAC-d-Flows-Specific-Info-List ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF Additional-EDCH-MAC-d-Flows-Specific-Info
```

```
Additional-EDCH-MAC-d-Flows-Specific-Info ::= SEQUENCE {
    e-DCH-MACdFlow-ID                               EDCH-MACdFlow-ID,
    bindingID                                       BindingID                                                   OPTIONAL,
    transportLayerAddress                           TransportLayerAddress                                       OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { Additional-EDCH-MAC-d-Flows-Specific-Info-ExtIEs} }
    OPTIONAL,
    ...
}

Additional-EDCH-MAC-d-Flows-Specific-Info-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-MAC-d-Flow-Specific-Information-Response-List::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF Additional-EDCH-MAC-d-Flows-Specific-
Info-Response

Additional-EDCH-MAC-d-Flows-Specific-Info-Response ::= SEQUENCE {
    e-DCH-MACdFlow-ID                       EDCH-MACdFlow-ID,
    bindingID                               BindingID                                                   OPTIONAL,
    transportLayerAddress                   TransportLayerAddress                                       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Additional-EDCH-MAC-d-Flows-Specific-Info-Response-ExtIEs} }
    OPTIONAL,
    ...
}

Additional-EDCH-MAC-d-Flows-Specific-Info-Response-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-Response-List  ::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF Additional-EDCH-FDD-Information-Response-ItemIEs

Additional-EDCH-FDD-Information-Response-ItemIEs    ::=SEQUENCE{
    eDCH-Additional-RL-Specific-Information-Response                    EDCH-Additional-RL-Specific-Information-Response-List,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-FDD-Information-Response-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-FDD-Information-Response-ItemIEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-Additional-RL-Specific-Information-Response-List   ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF EDCH-Additional-RL-Specific-Information-
Response-ItemIEs

EDCH-Additional-RL-Specific-Information-Response-ItemIEs    ::=SEQUENCE{
    eDCH-Additional-RL-ID               RL-ID,
    received-total-wide-band-power                  Received-total-wide-band-power,
    dL-PowerBalancing-ActivationIndicator           DL-PowerBalancing-ActivationIndicator   OPTIONAL,
    rL-Set-ID                                       RL-Set-ID,
    e-DCH-RL-Set-ID                                 RL-Set-ID,
    eDCH-FDD-DL-ControlChannelInformation           EDCH-FDD-DL-ControlChannelInformation,
    dl-CodeInformation                              FDD-DL-CodeInformation,
```

```
    additional-EDCH-MAC-d-Flow-Specific-Information-Response-List          Additional-EDCH-MAC-d-Flow-Specific-Information-Response-List
    OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH        OPTIONAL,   maxUL-SIR                  UL-SIR,
    minUL-SIR                       UL-SIR,
    maximumAllowedULTxPower         MaximumAllowedULTxPower,
    maximumDL-power                     DL-Power,
    minimumDL-power                     DL-Power,
    primaryScramblingCode           PrimaryScramblingCode                   OPTIONAL,
    uL-UARFCN                       UARFCN                                  OPTIONAL,
    dL-UARFCN                       UARFCN                                  OPTIONAL,
    primaryCPICH-Power              PrimaryCPICH-Power,
    pC-Preamble                     PC-Preamble,
    primary-CPICH-Usage-For-Channel-Estimation                  Primary-CPICH-Usage-For-Channel-Estimation         OPTIONAL,
    secondary-CPICH-Information         Secondary-CPICH-Information                     OPTIONAL,
    f-DPCH-SlotFormat                   F-DPCH-SlotFormat                           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { EDCH-Additional-RL-Specific-Information-Response-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

EDCH-Additional-RL-Specific-Information-Response-ItemIEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-Response-RLReconf-List::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF Additional-EDCH-FDD-Information-Response-RLReconf-
Items

Additional-EDCH-FDD-Information-Response-RLReconf-Items::=SEQUENCE{
    eDCH-Additional-RL-Specific-Information-Response                        EDCH-Additional-RL-Specific-Information-Response-List    OPTIONAL,
    eDCH-Additional-RL-Specific-Modified-Information-Response       EDCH-Additional-RL-Specific-Modified-Information-Response-List   OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-FDD-Information-Response-RLReconf-Items-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-FDD-Information-Response-RLReconf-Items-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-Additional-RL-Specific-Modified-Information-Response-List  ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF EDCH-Additional-RL-Specific-Modified-
Information-Response-ItemIEs

EDCH-Additional-RL-Specific-Modified-Information-Response-ItemIEs   ::=SEQUENCE{
    eDCH-Additional-RL-ID               RL-ID,
    dL-PowerBalancing-UpdatedIndicator              DL-PowerBalancing-UpdatedIndicator      OPTIONAL,
    eDCH-FDD-DL-ControlChannelInformation           EDCH-FDD-DL-ControlChannelInformation       OPTIONAL,
    additional-EDCH-MAC-d-Flow-Specific-Information-Response-List          Additional-EDCH-MAC-d-Flow-Specific-Information-Response-List
    OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH        OPTIONAL,
    maxUL-SIR                       UL-SIR      OPTIONAL,
    minUL-SIR                       UL-SIR      OPTIONAL,
    maximumDL-power                     DL-Power        OPTIONAL,
    minimumDL-power                     DL-Power        OPTIONAL,
    primary-CPICH-Usage-For-Channel-Estimation                  Primary-CPICH-Usage-For-Channel-Estimation         OPTIONAL,
    secondary-CPICH-Information-Change      Secondary-CPICH-Information-Change          OPTIONAL,
    f-DPCH-SlotFormat                   F-DPCH-SlotFormat                           OPTIONAL,
```

```
    iE-Extensions                   ProtocolExtensionContainer { { EDCH-Additional-RL-Specific-Modified-Information-Response-ItemIEs-ExtIEs} }
OPTIONAL,
    ...
}

EDCH-Additional-RL-Specific-Modified-Information-Response-ItemIEs-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-ConfigurationChange-List   ::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF Additional-EDCH-ConfigurationChange-Info-
ItemIEs
Additional-EDCH-ConfigurationChange-Info-ItemIEs    ::=SEQUENCE{
    additional-EDCH-UL-DPCH-Information-Modify                          Additional-EDCH-UL-DPCH-Information-Modify    OPTIONAL,
    additional-EDCH-RL-Specific-Information-To-Add                      Additional-EDCH-RL-Specific-Information-To-Add-List    OPTIONAL,
    additional-EDCH-RL-Specific-Information-To-Modify                   Additional-EDCH-RL-Specific-Information-To-Modify-List OPTIONAL,
    additional-EDCH-FDD-Information-To-Modify                           Additional-EDCH-FDD-Information   OPTIONAL,
    additional-EDCH-F-DPCH-Information-Modify                           Additional-EDCH-F-DPCH-Information   OPTIONAL,
    multicellEDCH-Information                                           MulticellEDCH-Information   OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-ConfigurationChange-Info-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-ConfigurationChange-Info-ItemIEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-UL-DPCH-Information-Modify      ::=SEQUENCE{
    ul-ScramblingCode                       UL-ScramblingCode   OPTIONAL,
    ul-SIR-Target                           UL-SIR              OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Additional-EDCH-UL-DPCH-Information-Modify-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-UL-DPCH-Information-Modify-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Additional-EDCH-Cell-Information-Removal-List   ::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF Additional-EDCH-Cell-Information-Removal-Info-ItemIEs

Additional-EDCH-Cell-Information-Removal-Info-ItemIEs   ::=SEQUENCE{
    rL-on-Secondary-UL-Frequency                            RL-on-Secondary-UL-Frequency,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-Cell-Information-Removal-Info-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-Cell-Information-Removal-Info-ItemIEs-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-on-Secondary-UL-Frequency ::= ENUMERATED {
    remove,
    ...
}
```

```
Additional-EDCH-FDD-Update-Information  ::=SEQUENCE{
    hARQ-Process-Allocation-Scheduled-2ms-EDCH                      HARQ-Process-Allocation-2ms-EDCH            OPTIONAL,
    additional-EDCH-DL-Control-Channel-Change-Information           Additional-EDCH-DL-Control-Channel-Change-Information-List       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-FDD-Update-Information-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-FDD-Update-Information-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Additional-EDCH-DL-Control-Channel-Change-Information-List  ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF Additional-EDCH-DL-Control-Channel-Change-
Info-ItemIEs

Additional-EDCH-DL-Control-Channel-Change-Info-ItemIEs  ::=SEQUENCE{
    eDCH-Additional-RL-ID               RL-ID,
    iE-Extensions                       ProtocolExtensionContainer { { Additional-EDCH-DL-Control-Channel-Change-Info-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-DL-Control-Channel-Change-Info-ItemIEs-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


AdditionalPreferredFrequency   ::= SEQUENCE (SIZE (1..maxNrOfAddFreq)) OF AdditionalPreferredFrequencyItem

AdditionalPreferredFrequencyItem ::= SEQUENCE {
    dL-UARFCN                       UARFCN,
    correspondingCells              CorrespondingCells ,
    iE-Extensions                   ProtocolExtensionContainer { { AdditionalPreferredFrequencyItem-ExtIEs} } OPTIONAL,
    ...
}


AdditionalPreferredFrequencyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AdjustmentPeriod            ::= INTEGER(1..256)
-- Unit Frame

AffectedUEInformationForMBMS    ::= SEQUENCE (SIZE (1..maxNrOfUEs)) OF S-RNTI

AllocationRetentionPriority ::= SEQUENCE {
    priorityLevel               PriorityLevel,
    pre-emptionCapability       Pre-emptionCapability,
    pre-emptionVulnerability    Pre-emptionVulnerability,
    iE-Extensions           ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
    ...
}

AllocationRetentionPriority-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

Allowed-Rate-Information    ::= SEQUENCE {
    allowed-UL-Rate         Allowed-Rate OPTIONAL,
    allowed-DL-Rate         Allowed-Rate OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {Allowed-Rate-Information-ExtIEs} } OPTIONAL,
    ...
}

Allowed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Allowed-Rate            ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...

AllowedQueuingTime          ::= INTEGER (1..60)
-- seconds

AlphaValue                  ::= INTEGER (0..8)
-- Actual value = Alpha / 8

AlternativeFormatReportingIndicator ::= ENUMERATED {
   alternativeFormatAllowed,...
}

Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
    aOA-LCR                 AOA-LCR,
    aOA-LCR-Accuracy-Class  AOA-LCR-Accuracy-Class,
    iE-Extensions           ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
...
}

Angle-Of-Arrival-Value-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD

AOA-LCR-Accuracy-Class  ::= ENUMERATED {a,b,c,d,e,f,g,h,...}

AntennaColocationIndicator ::= ENUMERATED {
    co-located,
    ...
}

-- B

BadSatellites ::= SEQUENCE {
    badSatelliteInformation     SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
            badSAT-ID                   SAT-ID,
```

```
            iE-Extensions               ProtocolExtensionContainer { { BadSatelliteInformation-ExtIEs} }      OPTIONAL,
            ...
        },
    iE-Extensions               ProtocolExtensionContainer { { BadSatellites-ExtIEs} }      OPTIONAL,
    ...
}

BadSatelliteInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

BadSatellites-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Band-Indicator ::= ENUMERATED {
    dcs1800Band,
    pcs1900Band,
    ...
}

BCC ::= BIT STRING (SIZE (3))

BCCH-ARFCN ::= INTEGER (0..1023)

BetaCD ::= INTEGER (0..15)

BindingID               ::= OCTET STRING (SIZE (1..4,...))
-- If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2.

BLER                    ::= INTEGER (-63..0)
-- Step 0.1 (Range -6.3..0). It is the Log10 of the BLER

SCTD-Indicator  ::= ENUMERATED {
    active,
    inactive
}

BSIC ::= SEQUENCE {
    nCC         NCC,
    bCC         BCC
}

BundlingModeIndicator ::= ENUMERATED {
    bundling,
    no-bundling
}

BurstModeParameters ::= SEQUENCE {
    burstStart      INTEGER (0..15),
    burstLength     INTEGER (10..25),
    burstFreq       INTEGER (1..16),
    iE-Extensions               ProtocolExtensionContainer { { BurstModeParameters-ExtIEs} }      OPTIONAL,
    ...
```

```
}

BurstModeParameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- C

Cause ::= CHOICE {
    radioNetwork        CauseRadioNetwork,
    transport           CauseTransport,
    protocol            CauseProtocol,
    misc                CauseMisc,
    ...
}

CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    om-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    ...
}

CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scrambling-code-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    combining-not-supported,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    requested-tx-diversity-mode-not-supported,
    measurement-temporaily-not-available,
    unspecified,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
```

```
    number-of-DL-codes-not-supported,
    dedicated-transport-channel-type-not-supported,
    dl-shared-channel-type-not-supported,
    ul-shared-channel-type-not-supported,
    common-transport-channel-type-not-supported,
    ul-spreading-factor-not-supported,
    dl-spreading-factor-not-supported,
    cm-not-supported,
    transaction-not-supported-by-destination-node-b,
    rl-already-activated-or-alocated,
    ...,
    number-of-UL-codes-not-supported,
    cell-reserved-for-operator-use,
    dpc-mode-change-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    power-balancing-status-not-compatible,
    delayed-activation-not-supported,
    rl-timing-adjustment-not-supported,
    unknown-RNTI,
    measurement-repetition-rate-not-compatible,
    ue-not-capable-of-support,
    f-dpch-not-supported,
    e-dch-not-supported,
    continuous-packet-connectivity-dtx-drx-operation-not-supported,
    continuous-packet-connectivity-hs-scch-less-operation-not-supported,
    mimo-not-supported,
    e-dch-tti2ms-not-supported,
    continuous-packet-connectivity-DTX-DRX-operation-not-available,
    continuous-packet-connectivity-UE-DTX-Cycle-not-available,
    mimo-not-available,
    sixteenQAM-UL-not-Supported,
    hSDSCH-MACdPDU-SizeFormatNotSupported,
    f-dpch-slot-format-operation-not-supported,
    e-DCH-MACdPDU-SizeFormat-not-available,
    e-DPCCH-Power-Boosting-not-supported,
    trelocprep-expiry,
    directed-retry,
    no-Iu-CS-UP-relocation,
    reduce-load-in-serving-cell,
    relocation-cancelled,
    relocation-desirable-for-radio-reasons,
    resource-optimisation-relocation,
    time-critical-relocation,
    traffic-load-in-the-target-cell-higher-than-in-the-source-cell,
    sixtyfourQAM-DL-and-MIMO-Combined-not-available,
    multi-Cell-operation-not-available,
    multi-Cell-operation-not-supported,
    semi-Persistent-scheduling-not-supported,
    continuous-Packet-Connectivity-DRX-not-supported,
    continuous-Packet-Connectivity-DRX-not-available,
    enhanced-relocation-not-supported,
    relocation-not-supported-due-to-PUESBINE-feature,
    relocation-failure-in-target-RNC,
```

```
    relocation-target-not-allowed,
    requested-ciphering-and-or-integrity-protection-algorithms-not-supported,
    sixtyfourQAM-DL-and-MIMO-Combined-not-supported,
    tx-diversity-for-mimo-on-DL-control-channels-not-available,
    single-Stream-MIMO-not-supported,
    single-Stream-MIMO-not-available,
    multi-Cell-operation-with-MIMO-not-supported,
    multi-Cell-operation-with-MIMO-not-available,
    multi-Cell-EDCH-operation-not-supported,
    multi-Cell-EDCH-operation-not-available,
    multi-Cell-operation-with-Single-Stream-MIMO-not-supported,
    multi-Cell-operation-with-Single-Stream-MIMO-not-available,
    cellSpecificTxDiversityHandlingForMultiCellOperationNotAvailable,
    cellSpecificTxDiversityHandlingForMultiCellOperationNotSupported

}

CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    ...
}

CellCapabilityContainer-FDD ::= BIT STRING (SIZE (32))
-- First bit: Flexible Hard Split Support Indicator
-- Second bit: Delayed Activation Support Indicator
-- Third bit: HS-DSCH Support Indicator
-- Fourth bit: DSCH Support Indicator
-- Fifth bit: F-DPCH Support Indicator
-- sixth bit: E-DCH Support Indicator
-- Seventh bit: E-DCH TTI2ms Support Indicator
-- Eighth bit: E-DCH 2sf2and2sf4 and all inferior SFs Support Indicator
-- Ninth bit: E-DCH 2sf2 and all inferior SFs Support Indicator
-- Tenth bit: E-DCH 2sf4 and all inferior SFs Support Indicator
-- Eleventh bit: E-DCH sf4 and all inferior SFs Support Indicator
-- Twelveth bit: E-DCH sf8 and all inferior SFs Support Indicator
-- Thirteenth bit: E-DCH HARQ IR Combining Support Indicator
-- Fourteenth bit: E-DCH HARQ Chase Combining Support Indicator
-- Fifteenth bit: Continuous Packet Connectivity DTX-DRX Support Indicator
-- Sixteenth bit: Continuous Packet Connectivity HS-SCCH less Support Indicator
-- Seventeenth bit: MIMO Support Indicator
-- Eighteenth bit: SixteenQAM UL Support Indicator
-- Nineteenth bit: Flexible MAC-d PDU Size Support Indicator
-- Twentieth bit: F-DPCH Slot Format Support Indicator
-- Twentyfirst bit: SixtyfourQAM DL Support Indicator
-- Twentysecond bit: Flexible E-DCH MAC-d PDU Size Support Indicator
-- Twentythird bit: E-DPCCH Power Boosting Support Indicator
-- Twentyfourth bit: SixtyfourQAM DL and MIMO Combined Support Indicator
-- Twentyfifth bit: Multi Cell Support Indicator Support Indicator
-- Twentysixth bit: MBMS Support Indicator
-- Twentyseventh bit: DRNS Support STTD on DL ctrl ch when the RL is in MIMO P-CPICH + S-CPICH cell
-- Twentyeighth bit: Dual Band Support Indicator
-- Twentyninth bit: Single Stream MIMO Support Indicator
-- Thirtieth bit: Preferred Precoding Weight Set Restriction Support Indicator
```

```
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

CellCapabilityContainerExtension-FDD ::= BIT STRING (SIZE (128))
-- First bit: Cell Specific Tx Diversity Handling For Multi Cell Operation Support Indicator
-- Second bit: Multi Cell and MIMO Support Indicator
-- Third bit: Multi Cell and Single Stream MIMO Support Indicator
-- Fourth bit: Multi Cell E-DCH Support Indicator
-- Fifth bit: Separate Iub Transport Bearer Support Indicator
-- Sixth bit: E-DCH UL Flow Multiplexing Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.


CellCapabilityContainer-TDD ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- The fourth bit: Flexible MAC-d PDU Size Support Indicator
-- Fifth bit: MBMS Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

CellCapabilityContainer-TDD-LCR ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- The fourth bit: Flexible MAC-d PDU Size Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

CellCapabilityContainer-TDD768 ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- The fourth bit: Flexible MAC-d PDU Size Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

C-ID                    ::= INTEGER (0..65535)

CCTrCH-ID               ::= INTEGER (0..15)

Cell-Capacity-Class-Value ::= SEQUENCE {
        uplinkCellCapacityClassValue        INTEGER(1..100,...),
        downlinkCellCapacityClassValue      INTEGER(1..100,...)
}


CellIndividualOffset    ::= INTEGER (-20..20)

CellListValidityIndicator   ::= ENUMERATED {
    ignoreSecondaryServingCellList,
    ignoreDualBandSecondaryServingCellList,
    ignoreBoth
}

CellParameterID             ::= INTEGER (0..127,...)
```

```
CellPortionID   ::= INTEGER (0..63,...)

CellPortionLCRID    ::= INTEGER (0..255,...)

CFN                 ::= INTEGER (0..255)

CGI ::= SEQUENCE {
    lAI         SEQUENCE {
        pLMN-Identity   PLMN-Identity,
        lAC             LAC,
        iE-Extensions           ProtocolExtensionContainer { {LAI-ExtIEs} } OPTIONAL,
        ...
    },
    cI              CI,
    iE-Extensions           ProtocolExtensionContainer { {CGI-ExtIEs} } OPTIONAL
}

LAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
    ...
}

ChipOffset              ::= INTEGER (0..38399)

CI                  ::= OCTET STRING (SIZE (2))

ClosedLoopMode1-SupportIndicator    ::= ENUMERATED {
    closedLoop-Mode1-Supported,
    closedLoop-Mode1-not-Supported
}


Closedlooptimingadjustmentmode  ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
    ...
}

CodingRate ::= ENUMERATED {
    half,
    third,
    ...
}
```

```
CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass       TUTRANGPSAccuracyClass,
    ...,
    tUTRANGANSSMeasurementAccuracyClass     TUTRANGANSSAccuracyClass
}

CommonMeasurementType ::= ENUMERATED {
    uTRAN-GPS-timing-of-cell-frames-for-UE-Positioning,
    sFN-SFN-observerd-time-difference,
    load,
    transmitted-carrier-power,
    received-total-wide-band-power,
    uplink-timeslot-iscp,
    ...,
    rT-load,
    nRT-load-Information,
    upPTSInterference,
    uTRAN-GANSS-timing-of-cell-frames-for-UE-Positioning
}
-- For measurements on the Iur-g interface, only load, RT Load and NRT Load information are requested.

CommonMeasurementValue ::= CHOICE {
    tUTRANGPSMeasurementValueInformation    TUTRANGPSMeasurementValueInformation,
    sFNSFNMeasurementValueInformation       SFNSFNMeasurementValueInformation,
    loadValue                               LoadValue,
    transmittedCarrierPowerValue            INTEGER(0..100),
    receivedTotalWideBandPowerValue         INTEGER(0..621),
    uplinkTimeslotISCPValue                 UL-TimeslotISCP,
    ...,
    extension-CommonMeasurementValue        Extension-CommonMeasurementValue
}

Extension-CommonMeasurementValue    ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}

Extension-CommonMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
    { ID id-RTLoadValue                                 CRITICALITY ignore  TYPE RTLoadValue                                PRESENCE mandatory }|
    { ID id-NRTLoadInformationValue                     CRITICALITY ignore  TYPE NRTLoadInformationValue                    PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue                      CRITICALITY reject  TYPE UpPTSInterferenceValue                     PRESENCE mandatory }|
    { ID id-TUTRANGANSSMeasurementValueInformation      CRITICALITY reject  TYPE TUTRANGANSSMeasurementValueInformation   PRESENCE mandatory }
}

-- For measurements on the Iur-g interface, only load, RT Load and NRT Load values are reported.

CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable        CommonMeasurementAvailable,
    measurementnotAvailable     NULL
}

CommonMeasurementAvailable::= SEQUENCE {
    commonMeasurementValue      CommonMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }     OPTIONAL,
    ...
}
```

```
CommonMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CongestionCause ::= ENUMERATED {
    uTRAN-dynamic-resources,
    uTRAN-semistatic-resources,
    ...
}

CommonTransportChannelResourcesInitialisationNotRequired ::= ENUMERATED {
    not-Required
}


Common-EDCH-MAC-d-Flow-Specific-InformationFDD ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF Common-EDCH-MAC-d-Flow-Specific-InformationFDDItem

Common-EDCH-MAC-d-Flow-Specific-InformationFDDItem ::= SEQUENCE {
    common-EDCH-MACdFlow-ID                         EDCH-MACdFlow-ID,
    maximum-Number-of-Retransmissions-For-E-DCH     MaxNr-Retransmissions-EDCH,
    eDCH-HARQ-PO-FDD                                E-DCH-HARQ-PO-FDD,
    eDCH-MACdFlow-Multiplexing-List                 E-DCH-MACdFlow-Multiplexing-List                    OPTIONAL,
    common-E-DCHLogicalChannelInformation           Common-E-DCH-LogicalChannelInformation,
    iE-Extensions                                   ProtocolExtensionContainer { { Common-EDCH-MAC-d-Flow-Specific-InformationFDDItem-ExtIEs} }
            OPTIONAL,
    ...
}

Common-EDCH-MAC-d-Flow-Specific-InformationFDDItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Common-EDCH-MAC-d-Flow-Specific-InformationLCR ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlowsLCR)) OF Common-EDCH-MAC-d-Flow-Specific-
InformationItemLCR

Common-EDCH-MAC-d-Flow-Specific-InformationItemLCR ::= SEQUENCE {
    common-EDCH-MACdFlow-ID-LCR                     EDCH-MACdFlow-ID-LCR,
    maximum-Number-of-Retransmissions-For-E-DCH     MaxNr-Retransmissions-EDCH,
    eDCH-HARQ-PO-TDD                                E-DCH-HARQ-PO-TDD,
    eDCH-MACdFlow-Multiplexing-List                 E-DCH-MACdFlow-Multiplexing-List                    OPTIONAL,
    common-E-DCHLogicalChannelInformation           Common-E-DCH-LogicalChannelInformation,
    iE-Extensions                                   ProtocolExtensionContainer { { Common-EDCH-MAC-d-Flow-Specific-InformationItemLCR-ExtIEs} }
            OPTIONAL,
    ...
}

Common-EDCH-MAC-d-Flow-Specific-InformationItemLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-E-DCH-LogicalChannelInformation ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF Common-E-DCH-LogicalChannelInformationItem

Common-E-DCH-LogicalChannelInformationItem ::= SEQUENCE {
```

```
    logicalChannelId                LogicalChannelID,
    maximumMACdPDU-SizeExtended     MAC-PDU-SizeExtended,
    iE-Extensions                   ProtocolExtensionContainer { { Common-E-DCH-LogicalChannelInformationItem-ExtIEs } }       OPTIONAL,
    ...
}

Common-E-DCH-LogicalChannelInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Common-EDCH-Support-Indicator ::= NULL

Continuous-Packet-Connectivity-DTX-DRX-Information ::= SEQUENCE {
    uE-DTX-DRX-Offset                           UE-DTX-DRX-Offset,
    enabling-Delay                              Enabling-Delay,
    dTX-Information                             DTX-Information,
    dRX-Information                             DRX-Information                         OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { Continuous-Packet-Connectivity-DTX-DRX-Information-ExtIEs } }
    OPTIONAL,
    ...
}

Continuous-Packet-Connectivity-DTX-DRX-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify ::= SEQUENCE {
    uE-DTX-DRX-Offset                           UE-DTX-DRX-Offset                       OPTIONAL,
    enabling-Delay                              Enabling-Delay                          OPTIONAL,
    dTX-Information-to-Modify                   DTX-Information-to-Modify               OPTIONAL,
    dRX-Information-to-Modify                   DRX-Information-to-Modify               OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { Continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify-ExtIEs
} }         OPTIONAL,
    ...
}

Continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Continuous-Packet-Connectivity-HS-SCCH-Less-Information ::= SEQUENCE (SIZE (1..maxNrOfHS-DSCHTBSs-HS-SCCHless)) OF Continuous-Packet-Connectivity-
HS-SCCH-Less-InformationItem

Continuous-Packet-Connectivity-HS-SCCH-Less-InformationItem ::= SEQUENCE {
    transport-Block-Size-Index              Transport-Block-Size-Index,
    hSPDSCH-Second-Code-Support             HSPDSCH-Second-Code-Support,
    iE-Extensions                           ProtocolExtensionContainer { { Continuous-Packet-Connectivity-HS-SCCH-Less-InformationItem-ExtIEs } }
            OPTIONAL,
    ...
}

Continuous-Packet-Connectivity-HS-SCCH-Less-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response ::= SEQUENCE {
    hSPDSCH-First-Code-Index               HSPDSCH-First-Code-Index,
    hSPDSCH-Second-Code-Index              HSPDSCH-Second-Code-Index              OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response-ExtIEs
} }         OPTIONAL,
    ...
}

Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CorrespondingCells  ::= SEQUENCE (SIZE (1..maxNrOfCellsPerFreq)) OF C-ID


CoverageIndicator ::= ENUMERATED {
    overlap,
    covers,
    containedIn,
    ...
}



CPC-Information ::= SEQUENCE {
    continuous-Packet-Connectivity-DTX-DRX-Information                    Continuous-Packet-Connectivity-DTX-DRX-Information
    OPTIONAL,
    continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify          Continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify
    OPTIONAL,
    continuous-Packet-Connectivity-HS-SCCH-Less-Information               Continuous-Packet-Connectivity-HS-SCCH-Less-Information
    OPTIONAL,
    iE-Extensions                                                         ProtocolExtensionContainer { { CPC-Information-ExtIEs} }
    OPTIONAL,
    ...
}

CPC-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Deactivate-Indicator        CRITICALITY reject          EXTENSION Continuous-Packet-
Connectivity-HS-SCCH-less-Deactivate-Indicator          PRESENCE optional},
    ...
}

Continuous-Packet-Connectivity-HS-SCCH-less-Deactivate-Indicator ::= NULL

Counting-Information ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Counting-Information-List

Counting-Information-List ::= SEQUENCE {
    c-ID                               C-ID,
    counting-Result                    Counting-Result,
    iE-Extensions                      ProtocolExtensionContainer { { Counting-Information-List-ExtIEs} } OPTIONAL,
    ...
}
```

```
Counting-Information-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Counting-Result ::= INTEGER (0..63)


CRC-Size                ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24,
    ...
}

CriticalityDiagnostics ::= SEQUENCE {
    procedureID                     ProcedureID             OPTIONAL,
    triggeringMessage               TriggeringMessage       OPTIONAL,
    procedureCriticality            Criticality             OPTIONAL,
    transactionID                   TransactionID           OPTIONAL,
    iEsCriticalityDiagnostics       CriticalityDiagnostics-IE-List  OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
    ...
}

CriticalityDiagnostics-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality           Criticality,
        iE-ID                   ProtocolIE-ID,
        repetitionNumber        RepetitionNumber0       OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
        ...
    }

CriticalityDiagnostics-IE-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{   ID id-MessageStructure      CRITICALITY ignore      EXTENSION MessageStructure      PRESENCE optional  }|
{   ID id-TypeOfError           CRITICALITY ignore      EXTENSION TypeOfError           PRESENCE mandatory },
    ...
}

MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
        iE-ID                   ProtocolIE-ID,
        repetitionNumber        RepetitionNumber1       OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
        ...
    }
```

```
MessageStructure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity       PLMN-Identity,
    lAC                 LAC,
    iE-Extensions       ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
}

CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CN-PS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity       PLMN-Identity,
    lAC                 LAC,
    rAC                 RAC,
    iE-Extensions       ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
}

CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CNDomainType    ::= ENUMERATED {
    cs-domain,
    ps-domain,
    i-care,
    ...
}
-- See in [16]

CQI-DTX-Timer ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity}
    -- Unit subframe

ControlGAP ::= INTEGER (1..255)

CQI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,..., v16, v32, v64}

CQI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1

CQI-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

C-RNTI                  ::= INTEGER (0..65535)

CodeRate ::= INTEGER (0..63)

CodeRate-short ::= INTEGER (0..10)

CPC-InformationLCR ::= SEQUENCE {
```

```
    continuousPacketConnectivity-DRX-InformationLCR                 ContinuousPacketConnectivity-DRX-InformationLCR                 OPTIONAL,
    continuousPacketConnectivity-DRX-Information-to-Modify-LCR      ContinuousPacketConnectivity-DRX-Information-to-Modify-LCR      OPTIONAL,
    hS-DSCH-Semi-PersistentScheduling-Information-LCR               HS-DSCH-Semi-PersistentScheduling-Information-LCR               OPTIONAL,
    hS-DSCH-Semi-PersistentScheduling-Information-to-Modify-LCR     HS-DSCH-Semi-PersistentScheduling-Information-to-Modify-LCR     OPTIONAL,
    hS-DSCH-SPS-Deactivate-Indicator-LCR                            NULL        OPTIONAL,
    e-DCH-Semi-PersistentScheduling-Information-LCR                 E-DCH-Semi-PersistentScheduling-Information-LCR                 OPTIONAL,
    e-DCH-Semi-PersistentScheduling-Information-to-Modify-LCR       E-DCH-Semi-PersistentScheduling-Information-to-Modify-LCR       OPTIONAL,
    e-DCH-SPS-Deactivate-Indicator-LCR                              NULL        OPTIONAL,
    iE-Extensions                                                   ProtocolExtensionContainer { { CPC-InformationLCR-ExtIEs} }     OPTIONAL,
    ...
}

CPC-InformationLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContinuousPacketConnectivity-DRX-InformationLCR ::= SEQUENCE {
    enabling-Delay                  Enabling-Delay,
    hS-SCCH-DRX-Information-LCR     HS-SCCH-DRX-Information-LCR,
    e-AGCH-DRX-Information-LCR      E-AGCH-DRX-Information-LCR      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ContinuousPacketConnectivity-DRX-InformationLCR-ExtIEs } }        OPTIONAL,
    ...
}

ContinuousPacketConnectivity-DRX-InformationLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-DRX-Information-LCR ::= SEQUENCE {
    hS-SCCH-UE-DRX-Cycle-LCR                                UE-DRX-Cycle-LCR,
    hS-SCCH-Inactivity-Threshold-for-UE-DRX-Cycle-LCR       Inactivity-Threshold-for-UE-DRX-Cycle-LCR       OPTIONAL,
    hS-SCCH-UE-DRX-Offset-LCR                               UE-DRX-Offset-LCR,
    iE-Extensions                   ProtocolExtensionContainer { { HS-SCCH-DRX-Information-LCR-ExtIEs} } OPTIONAL,
    ...
}

HS-SCCH-DRX-Information-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-DRX-Information-LCR ::= CHOICE {
    sameAsHS-SCCH               NULL,
    e-AGCH-DRX-Parameters       E-AGCH-DRX-Parameters,
    ...
}

E-AGCH-DRX-Parameters ::= SEQUENCE {
    e-AGCH-UE-DRX-Cycle-LCR                         UE-DRX-Cycle-LCR,
    e-AGCH-UE-Inactivity-Monitor-Threshold          E-AGCH-UE-Inactivity-Monitor-Threshold      OPTIONAL,
    e-AGCH-UE-DRX-Offset-LCR                        UE-DRX-Offset-LCR,
    iE-Extensions                                   ProtocolExtensionContainer { { E-AGCH-DRX-Parameters-ExtIEs} } OPTIONAL,
    ...
}
```

```
E-AGCH-DRX-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UE-DRX-Cycle-LCR ::= ENUMERATED {v1, v2, v4, v8, v16, v32, v64,...}
    -- Unit subframe

UE-DRX-Offset-LCR ::= INTEGER (0..63)
    -- Unit subframe

Inactivity-Threshold-for-UE-DRX-Cycle-LCR ::= ENUMERATED {v1, v2, v4, v8, v16, v32, v64,...}
    -- Unit subframe

E-AGCH-UE-Inactivity-Monitor-Threshold ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity,...}
    -- Unit subframe

ContinuousPacketConnectivity-DRX-Information-to-Modify-LCR ::= SEQUENCE {
    enabling-Delay                          Enabling-Delay                          OPTIONAL,
    dRX-Information-to-Modify-LCR           DRX-Information-to-Modify-LCR           OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { ContinuousPacketConnectivity-DRX-Information-to-Modify-LCR-ExtIEs }
}               OPTIONAL,
    ...
}

ContinuousPacketConnectivity-DRX-Information-to-Modify-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DRX-Information-to-Modify-LCR ::= CHOICE {
    modify          DRX-Information-to-Modify-Items-LCR,
    deactivate      NULL,
    ...
}

DRX-Information-to-Modify-Items-LCR ::= SEQUENCE {
    hS-SCCH-DRX-Information-LCR             HS-SCCH-DRX-Information-LCR         OPTIONAL,
    e-AGCH-DRX-Information-LCR              E-AGCH-DRX-Information-LCR          OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {DRX-Information-to-Modify-Items-LCR-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-to-Modify-Items-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContinuousPacketConnectivity-DRX-Information-ResponseLCR ::= SEQUENCE {
    enabling-Delay                      Enabling-Delay                      OPTIONAL,
    hS-SCCH-DRX-Information-ResponseLCR  HS-SCCH-DRX-Information-ResponseLCR  OPTIONAL,
    e-AGCH-DRX-Information-ResponseLCR   E-AGCH-DRX-Information-ResponseLCR   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { ContinuousPacketConnectivity-DRX-Information-ResponseLCR-ExtIEs } }
        OPTIONAL,
    ...
}
```

```
ContinuousPacketConnectivity-DRX-Information-ResponseLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-DRX-Information-ResponseLCR ::= SEQUENCE {
    hS-SCCH-UE-DRX-Cycle-LCR                                UE-DRX-Cycle-LCR        OPTIONAL,
    hS-SCCH-Inactivity-Threshold-for-UE-DRX-Cycle-LCR       Inactivity-Threshold-for-UE-DRX-Cycle-LCR    OPTIONAL,
    hS-SCCH-UE-DRX-Offset-LCR                               UE-DRX-Offset-LCR       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { HS-SCCH-DRX-Information-ResponseLCR-ExtIEs} } OPTIONAL,
    ...
}

HS-SCCH-DRX-Information-ResponseLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-DRX-Information-ResponseLCR ::= CHOICE {
    sameAsHS-SCCH                   NULL,
    e-AGCH-DRX-Parameters-Response      E-AGCH-DRX-Parameters-Response,
    ...
}

E-AGCH-DRX-Parameters-Response ::= SEQUENCE {
    e-AGCH-UE-DRX-Cycle-LCR                         UE-DRX-Cycle-LCR                        OPTIONAL,
    e-AGCH-UE-Inactivity-Monitor-Threshold          E-AGCH-UE-Inactivity-Monitor-Threshold  OPTIONAL,
    e-AGCH-UE-DRX-Offset-LCR                        UE-DRX-Offset-LCR                       OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-AGCH-DRX-Parameters-Response-ExtIEs} } OPTIONAL,
    ...
}

E-AGCH-DRX-Parameters-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- D

DATA-ID ::= INTEGER (0..3)


DCH-FDD-Information     ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem

DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-Specific-FDD-InformationList,
    iE-Extensions                       ProtocolExtensionContainer { {DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

DCH-FDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos          CRITICALITY     ignore      EXTENSION   TnlQos      PRESENCE    optional },
    ...
```

```
}

DCH-MeasurementOccasion-Information ::= SEQUENCE (SIZE (1.. maxNrOfDCHMeasurementOccasionPatternSequence)) OF DchMeasurementOccasionInformation-
Item

DchMeasurementOccasionInformation-Item ::= SEQUENCE {
    pattern-Sequence-Identifier                Pattern-Sequence-Identifier,
    status-Flag                                Status-Flag,
    measurement-Occasion-Pattern-Sequence-parameters           Measurement-Occasion-Pattern-Sequence-parameters         OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { DCH-MeasurementOccasion-Information-ExtIEs } }        OPTIONAL,
    ...
}

DCH-MeasurementOccasion-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Measurement-Occasion-Pattern-Sequence-parameters ::= SEQUENCE {
    measurement-Occasion-Pattern-Sequence-parameters-k                 INTEGER(1..9),
    measurement-Occasion-Pattern-Sequence-parameters-offset            INTEGER(0..511),
    measurement-Occasion-Pattern-Sequence-parameters-M-Length          INTEGER(1..512),
    measurement-Occasion-Pattern-Sequence-parameters-Timeslot-Bitmap    BIT STRING (SIZE (7)),
    iE-Extensions               ProtocolExtensionContainer { { Measurement-Occasion-Pattern-Sequence-parameters-ExtIEs } } OPTIONAL,
    ...
}

Measurement-Occasion-Pattern-Sequence-parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-MeasurementType-Indicator ::= BIT STRING (SIZE (5))


DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item

DCH-Specific-FDD-Item ::=   SEQUENCE {
    dCH-ID                              DCH-ID,
    trCH-SrcStatisticsDescr             TrCH-SrcStatisticsDescr,
    ul-transportFormatSet               TransportFormatSet,
    dl-transportFormatSet               TransportFormatSet,
    ul-BLER                             BLER,
    dl-BLER                             BLER,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    qE-Selector                         QE-Selector,
    dRACControl                         DRACControl,
    iE-Extensions                       ProtocolExtensionContainer { {DCH-FDD-SpecificItem-ExtIEs} } OPTIONAL,
    ...
}

DCH-FDD-SpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information     CRITICALITY ignore  EXTENSION Guaranteed-Rate-Information     PRESENCE optional }|
    { ID id-TrafficClass                    CRITICALITY ignore  EXTENSION TrafficClass  PRESENCE mandatory}|
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator    PRESENCE optional },
```

```
    ...
}

DCH-Indicator-For-E-DCH-HSDPA-Operation ::= ENUMERATED {
    dch-not-present
}

DCH-ID                  ::= INTEGER (0..255)

DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem

DCH-InformationResponseItem ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    bindingID                   BindingID               OPTIONAL,
    transportLayerAddress       TransportLayerAddress   OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DCH-InformationResponseItem-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Allowed-Rate-Information            CRITICALITY ignore  EXTENSION Allowed-Rate-Information             PRESENCE optional }|
    { ID id-TransportBearerNotSetupIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotSetupIndicator     PRESENCE optional }, -- FDD only
    ...
}

DCH-TDD-Information     ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem

DCH-TDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-Specific-TDD-InformationList,
    iE-Extensions                       ProtocolExtensionContainer { {DCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

DCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                      CRITICALITY     ignore      EXTENSION   TnlQos      PRESENCE    optional },
    ...
}

DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item

DCH-Specific-TDD-Item ::=   SEQUENCE {
    dCH-ID                              DCH-ID,
    ul-cCTrCH-ID                        CCTrCH-ID, -- UL CCTrCH in which the DCH is mapped
    dl-cCTrCH-ID                        CCTrCH-ID, -- DL CCTrCH in which the DCH is mapped
    trCH-SrcStatisticsDescr             TrCH-SrcStatisticsDescr,
    ul-transportFormatSet               TransportFormatSet,
    dl-transportFormatSet               TransportFormatSet,
    ul-BLER                             BLER,
    dl-BLER                             BLER,
    allocationRetentionPriority         AllocationRetentionPriority,
```

```
    frameHandlingPriority               FrameHandlingPriority,
    qE-Selector                         QE-Selector         OPTIONAL,
    -- This IE shall be present if DCH is part of set of Co-ordinated DCHs
    iE-Extensions                       ProtocolExtensionContainer { {DCH-Specific-TDD-Item-ExtIEs} } OPTIONAL,
    ...
}

DCH-Specific-TDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information     CRITICALITY ignore  EXTENSION Guaranteed-Rate-Information     PRESENCE optional }|
    { ID id-TrafficClass                    CRITICALITY ignore  EXTENSION TrafficClass  PRESENCE mandatory}|
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator    PRESENCE optional },
    ...
}

DedicatedMeasurementType ::= ENUMERATED {
    sir,
    sir-error,
    transmitted-code-power,
    rSCP,
    rx-timing-deviation,
    round-trip-time,
    ...,
    rx-timing-deviation-LCR,
    angle-Of-Arrival-LCR,
    hs-sich-quality,
    rx-timing-deviation-768,
    rx-timing-deviation-ext

}

DedicatedMeasurementValue ::= CHOICE {
    sIR-Value           SIR-Value,
    sIR-ErrorValue          SIR-Error-Value,
    transmittedCodePowerValue   Transmitted-Code-Power-Value,
    rSCP                RSCP-Value, -- TDD only
    rxTimingDeviationValue  Rx-Timing-Deviation-Value,  -- 3.84Mcps TDD only
    roundTripTime       Round-Trip-Time-Value,  -- FDD only
    ...,
    extension-DedicatedMeasurementValue     Extension-DedicatedMeasurementValue
}

Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}

Extension-DedicatedMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Rx-Timing-Deviation-Value-LCR       CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-LCR    PRESENCE mandatory }|
    { ID id-Angle-Of-Arrival-Value-LCR          CRITICALITY reject  TYPE Angle-Of-Arrival-Value-LCR       PRESENCE mandatory }|
    { ID id-HS-SICH-Reception-Quality           CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Value  PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-768       CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-768    PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-ext       CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-ext    PRESENCE mandatory }|
    { ID id-Extended-Round-Trip-Time-Value      CRITICALITY reject  TYPE Extended-Round-Trip-Time-Value   PRESENCE mandatory },
    ...
}

DedicatedMeasurementValueInformation ::= CHOICE {
```

```
    measurementAvailable        DedicatedMeasurementAvailable,
    measurementnotAvailable     DedicatedMeasurementnotAvailable
}

DedicatedMeasurementAvailable::= SEQUENCE {
    dedicatedmeasurementValue       DedicatedMeasurementValue,
    cFN                             CFN                         OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} }      OPTIONAL,
    ...
}

DedicatedMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementnotAvailable ::= NULL

DelayedActivation ::= CHOICE {
    cfn                     CFN,
    separate-indication     NULL
}

DelayedActivationUpdate ::= CHOICE {
    activate        Activate-Info,
    deactivate      Deactivate-Info
}

Activate-Info ::= SEQUENCE {
    activation-type         Execution-Type,
    initial-dl-tx-power     DL-Power,
    firstRLS-Indicator      FirstRLS-Indicator                                      OPTIONAL, --FDD Only
    propagation-delay       PropagationDelay                                        OPTIONAL, --FDD Only
    iE-Extensions           ProtocolExtensionContainer { { Activate-Info-ExtIEs} }      OPTIONAL,
    ...
}

Activate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-ExtendedPropagationDelay    CRITICALITY ignore  EXTENSION ExtendedPropagationDelay    PRESENCE optional },
    ...
}

Deactivate-Info ::= SEQUENCE {
    deactivation-type       Execution-Type,
    iE-Extensions           ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }        OPTIONAL,
    ...
}

Deactivate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Execution-Type ::= CHOICE {
```

```
    synchronised    CFN,
    unsynchronised  NULL
}

DeltaSIR                ::= INTEGER (0..30)
-- Step 0.1 dB, Range 0..3 dB.

DGANSSCorrections ::= SEQUENCE {
    dGANSS-ReferenceTime            INTEGER(0..119),
    dGANSS-Information              SEQUENCE (SIZE (1..maxSgnType)) OF SEQUENCE {
        gANSS-SignalId                  GANSS-Signal-ID                                                         OPTIONAL,
        gANSS-StatusHealth              GANSS-StatusHealth,
-- The following IE shall be present if the StatusHealth IE value is not equal to "no data" or "invalid data"
        dGANSS-SignalInformation        SEQUENCE (SIZE (1..maxGANSSSat)) OF SEQUENCE {
            satId                           INTEGER(0..63),
            gANSS-iod                       BIT STRING (SIZE (10)),
            udre                            UDRE,
            ganss-prc                       INTEGER(-2047..2047),
            ganss-rrc                       INTEGER(-127..127),
            ie-Extensions                   ProtocolExtensionContainer { { DGANSS-SignalInformationItem-ExtIEs } }  OPTIONAL,
            ...
        }                                                                                                       OPTIONAL,
        ie-Extensions                   ProtocolExtensionContainer { { DGANSS-InformationItem-ExtIEs } }        OPTIONAL,
        ...
    },
    ie-Extensions                   ProtocolExtensionContainer { { DGANSSCorrections-ExtIEs } }                 OPTIONAL,
    ...
}

DGANSSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSS-Corrections-Req ::= SEQUENCE {
    dGANSS-Signal-ID                BIT STRING (SIZE (8)),
    ie-Extensions                   ProtocolExtensionContainer { { DGANSS-Corrections-Req-ExtIEs } }        OPTIONAL,
    ...
}

DGANSS-Corrections-Req-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-GANSS-ID             CRITICALITY ignore  EXTENSION   GANSS-ID            PRESENCE    optional},
    ...
}

DGANSS-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

DGANSS-SignalInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-DGNSS-ValidityPeriod CRITICALITY ignore  EXTENSION   DGNSS-ValidityPeriod    PRESENCE                    optional},
    ...
}

DGANSSThreshold ::= SEQUENCE {
    pRCDeviation        PRCDeviation,
    ...
}

DGNSS-ValidityPeriod ::=            SEQUENCE {
    udreGrowthRate                      UDREGrowthRate,
    udreValidityTime                    UDREValidityTime,
    iE-Extensions                       ProtocolExtensionContainer { { DGNSS-ValidityPeriod-ExtIEs } }     OPTIONAL,
    ...
}

DGNSS-ValidityPeriod-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGPSCorrections ::= SEQUENCE {
    gPSTOW                                  GPSTOW,
    gPS-Status-Health                       GPS-Status-Health,
    satellite-DGPSCorrections-Information   SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
            sAT-ID                              SAT-ID,
            iode-dgps                           BIT STRING (SIZE (8)),
            uDRE                                UDRE,
            pRC                                 PRC,
            range-Correction-Rate               Range-Correction-Rate,
            iE-Extensions                       ProtocolExtensionContainer { { Satellite-DGPSCorrections-Information-ExtIEs} }    OPTIONAL,
            ...
        },
    iE-Extensions                   ProtocolExtensionContainer { { DGPSCorrections-ExtIEs} }      OPTIONAL,
    ...
}

Satellite-DGPSCorrections-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-DGNSS-ValidityPeriod CRITICALITY ignore  EXTENSION   DGNSS-ValidityPeriod    PRESENCE  optional},
    ...
}

DGPSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DGPSThreshold ::= SEQUENCE {
    pRCDeviation        PRCDeviation,
    iE-Extensions       ProtocolExtensionContainer { { DGPSThreshold-ExtIEs} }      OPTIONAL,
    ...
}

DGPSThreshold-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiscardTimer ::= ENUMERATED
{v20,v40,v60,v80,v100,v120,v140,v160,v180,v200,v250,v300,v400,v500,v750,v1000,v1250,v1500,v1750,v2000,v2500,v3000,v3500,v4000,v4500,v5000,v7500,
 ...
}

DiversityControlField           ::= ENUMERATED {
    may,
    must,
    must-not
}

DiversityMode               ::= ENUMERATED {
    none,
    sTTD,
    closedLoopMode1,
    not-used-closedLoopMode2,
    ...
}

DL-DPCH-SlotFormat          ::= INTEGER (0..16,...)

DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
}

DL-Power                ::= INTEGER (-350..150)
-- Value = DL-Power / 10
-- Unit dB, Range –35dB .. +15dB, Step 0.1dB

DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType                 PowerAdjustmentType,
    dLReferencePower                    DL-Power        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList        DL-ReferencePowerInformationList        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    maxAdjustmentStep                   MaxAdjustmentStep       OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod                    AdjustmentPeriod        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentRatio                     ScaledAdjustmentRatio   OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    iE-Extensions                       ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    ...
```

```
}

DL-PowerBalancing-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-ReferencePowerInformationList        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem

DL-ReferencePowerInformationItem ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-Reference-Power          DL-Power,
    iE-Extensions               ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    ...
}

DL-ReferencePowerInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-PowerBalancing-ActivationIndicator   ::= ENUMERATED {
    dL-PowerBalancing-Activated
}

DL-PowerBalancing-UpdatedIndicator  ::= ENUMERATED {
    dL-PowerBalancing-Updated
}

DL-ReferencePowerInformation    ::= SEQUENCE {
    common-DL-ReferencePowerInformation         DL-Power        OPTIONAL,
    individual-DL-ReferencePowerInformation     DL-ReferencePowerInformationList        OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-ReferencePowerInformation-ExtIEs } } OPTIONAL,
    ...
}

DL-ReferencePowerInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

D-RNTI                  ::= INTEGER (0..1048575)

D-RNTI-ReleaseIndication ::= ENUMERATED {
    release-D-RNTI,
    not-release-D-RNTI
}

DL-ScramblingCode           ::= INTEGER (0..15)

DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    ...
}

DL-Timeslot-Information ::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem
```

```
DL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    midambleShiftAndBurstType   MidambleShiftAndBurstType,
    tFCI-Presence               TFCI-Presence,
    dL-Code-Information         TDD-DL-Code-Information,
    iE-Extensions               ProtocolExtensionContainer { {DL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF DL-TimeslotLCR-InformationItem

DL-TimeslotLCR-InformationItem   ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    tFCI-Presence                       TFCI-Presence,
    dL-Code-LCR-Information          TDD-DL-Code-LCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

DL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationItem    CRITICALITY ignore   EXTENSION DL-Power                  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem    CRITICALITY ignore   EXTENSION DL-Power                  PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Timeslot-Information768 ::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem768

DL-Timeslot-InformationItem768 ::= SEQUENCE {
    timeSlot                    TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768,
    tFCI-Presence               TFCI-Presence,
    dL-Code-Information768      TDD-DL-Code-Information768,
    iE-Extensions               ProtocolExtensionContainer { {DL-Timeslot-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF DL-TimeSlot-ISCP-InfoItem

DL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot                TimeSlot,
    dL-TimeslotISCP         DL-TimeslotISCP,
    iE-Extensions           ProtocolExtensionContainer { { DL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
```

```
    ...
}

DL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeSlot-ISCP-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-TimeSlot-ISCP-LCR-InfoItem

DL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    dL-TimeslotISCP                 DL-TimeslotISCP,
    iE-Extensions                   ProtocolExtensionContainer { { DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }    OPTIONAL,
    ...
 }

DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotISCP         ::= INTEGER (0..91)
-- According to mapping in [24]

Downlink-Compressed-Mode-Method     ::= ENUMERATED {
    not-Used-puncturing,
    sFdiv2,
    higher-layer-scheduling,
    ...
}

DPC-Mode ::= ENUMERATED {
    mode0,
    mode1,
   ...
}

DPC-Mode-Change-SupportIndicator ::= ENUMERATED {
   dPC-ModeChangeSupported
}

DPCH-ID                 ::= INTEGER (0..239)

DPCH-ID768 ::= INTEGER (0..479)

DPCHConstantValue ::= INTEGER (-10..10)
-- Unit dB, Step 1dB

DRACControl     ::= ENUMERATED {
    not-Used-requested,
    not-requested
}

DRXCycleLengthCoefficient               ::= INTEGER (3..9)
-- See in [16]
```

```
DRX-Information ::= SEQUENCE {
    uE-DRX-Cycle                            UE-DRX-Cycle,
    inactivity-Threshold-for-UE-DRX-Cycle                       Inactivity-Threshold-for-UE-DRX-Cycle,
    inactivity-Threshold-for-UE-Grant-Monitoring                Inactivity-Threshold-for-UE-Grant-Monitoring,
    uE-DRX-Grant-Monitoring                 UE-DRX-Grant-Monitoring,
    iE-Extensions                           ProtocolExtensionContainer { {DRX-Information-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DRX-Information-to-Modify ::= CHOICE {
    modify              DRX-Information-to-Modify-Items,
    deactivate      NULL,
    ...
}


DRX-Information-to-Modify-Items ::= SEQUENCE {
    uE-DRX-Cycle                            UE-DRX-Cycle                OPTIONAL,
    inactivity-Threshold-for-UE-DRX-Cycle                       Inactivity-Threshold-for-UE-DRX-Cycle          OPTIONAL,
    inactivity-Threshold-for-UE-Grant-Monitoring                Inactivity-Threshold-for-UE-Grant-Monitoring         OPTIONAL,
    uE-DRX-Grant-Monitoring                 UE-DRX-Grant-Monitoring             OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {DRX-Information-to-Modify-Items-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-to-Modify-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-RNTI ::= INTEGER (0..65535)

DSCH-FlowControlInformation ::=  SEQUENCE (SIZE(1..16)) OF DSCH-FlowControlItem

DSCH-FlowControlItem ::= SEQUENCE {
    dSCH-SchedulingPriority             SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths                MAC-c-sh-SDU-LengthList,
    iE-Extensions                       ProtocolExtensionContainer { {DSCH-FlowControlItem-ExtIEs} } OPTIONAL,
    ...
}

DSCH-FlowControlItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-InitialWindowSize  CRITICALITY ignore  EXTENSION   DSCH-InitialWindowSize  PRESENCE optional },
    ...
}

DSCH-ID                 ::= INTEGER (0..255)

DSCH-InitialWindowSize          ::= INTEGER (1..255)
```

```
-- Number of MAC-c/sh SDUs.
-- 255 = Unlimited number of MAC-c/sh SDUs

DSCH-TDD-Information ::=  SEQUENCE (SIZE (1..maxNoOfDSCHs)) OF DSCH-TDD-InformationItem

DSCH-TDD-InformationItem ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    dl-ccTrCHID                         CCTrCH-ID, -- DL CCTrCH in which the DSCH is mapped
    trChSourceStatisticsDescriptor      TrCH-SrcStatisticsDescr,
    transportFormatSet                  TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    bLER                                BLER,
    iE-Extensions                       ProtocolExtensionContainer { {DSCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

DSCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass                    CRITICALITY ignore  EXTENSION TrafficClass              PRESENCE mandatory}|
    { ID id-BindingID                       CRITICALITY ignore  EXTENSION   BindingID               PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress           CRITICALITY ignore  EXTENSION   TransportLayerAddress   PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                          CRITICALITY ignore  EXTENSION   TnlQos                  PRESENCE optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

DsField ::= BIT STRING (SIZE (8))


DTX-Cycle-2ms-Items ::= SEQUENCE {
    uE-DTX-Cycle1-2ms               UE-DTX-Cycle1-2ms,
    uE-DTX-Cycle2-2ms               UE-DTX-Cycle2-2ms,
    mAC-DTX-Cycle-2ms               MAC-DTX-Cycle-2ms,
    iE-Extensions                           ProtocolExtensionContainer { { DTX-Cycle-2ms-Items-ExtIEs} }            OPTIONAL,
    ...
}

DTX-Cycle-2ms-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-2ms-to-Modify-Items ::= SEQUENCE {
    uE-DTX-Cycle1-2ms               UE-DTX-Cycle1-2ms           OPTIONAL,
    uE-DTX-Cycle2-2ms               UE-DTX-Cycle2-2ms           OPTIONAL,
    mAC-DTX-Cycle-2ms               MAC-DTX-Cycle-2ms           OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DTX-Cycle-2ms-to-Modify-Items-ExtIEs} }      OPTIONAL,
    ...
}

DTX-Cycle-2ms-to-Modify-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DTX-Cycle-10ms-Items ::= SEQUENCE {
    uE-DTX-Cycle1-10ms              UE-DTX-Cycle1-10ms,
    uE-DTX-Cycle2-10ms              UE-DTX-Cycle2-10ms,
    mAC-DTX-Cycle-10ms              MAC-DTX-Cycle-10ms,
    iE-Extensions                           ProtocolExtensionContainer { { DTX-Cycle-10ms-Items-ExtIEs} }           OPTIONAL,
    ...
}

DTX-Cycle-10ms-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-10ms-to-Modify-Items ::= SEQUENCE {
    uE-DTX-Cycle1-10ms              UE-DTX-Cycle1-10ms          OPTIONAL,
    uE-DTX-Cycle2-10ms              UE-DTX-Cycle2-10ms          OPTIONAL,
    mAC-DTX-Cycle-10ms              MAC-DTX-Cycle-10ms                                                          OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DTX-Cycle-10ms-to-Modify-Items-ExtIEs} }       OPTIONAL,
    ...
}

DTX-Cycle-10ms-to-Modify-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Information ::= SEQUENCE {
    e-DCH-TTI-Length                    E-DCH-TTI-Length,
    inactivity-Threshold-for-UE-DTX-Cycle2                  Inactivity-Threshold-for-UE-DTX-Cycle2,
    uE-DTX-Long-Preamble                UE-DTX-Long-Preamble,
    mAC-Inactivity-Threshold                MAC-Inactivity-Threshold    ,
    cQI-DTX-Timer               CQI-DTX-Timer,
    uE-DPCCH-burst1             UE-DPCCH-burst1,
    uE-DPCCH-burst2             UE-DPCCH-burst2,
    iE-Extensions               ProtocolExtensionContainer { {DTX-Information-ExtIEs} } OPTIONAL,
    ...
}

DTX-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Information-to-Modify ::= CHOICE {
    modify              DTX-Information-to-Modify-Items,
    deactivate          NULL,
    ...
}


DTX-Information-to-Modify-Items ::= SEQUENCE {
    e-DCH-TTI-Length-to-Modify      E-DCH-TTI-Length-to-Modify                  OPTIONAL,
    inactivity-Threshold-for-UE-DTX-Cycle2                  Inactivity-Threshold-for-UE-DTX-Cycle2              OPTIONAL,
    uE-DTX-Long-Preamble            UE-DTX-Long-Preamble                OPTIONAL,
    mAC-Inactivity-Threshold            MAC-Inactivity-Threshold                OPTIONAL,
    cQI-DTX-Timer                   CQI-DTX-Timer                       OPTIONAL,
```

```
    uE-DPCCH-burst1                 UE-DPCCH-burst1                     OPTIONAL,
    uE-DPCCH-burst2                 UE-DPCCH-burst2                     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DTX-Information-to-Modify-Items-ExtIEs} } OPTIONAL,
    ...
}

DTX-Information-to-Modify-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- E


EARFCN ::= INTEGER (0..maxEARFCN)

EARFCN-Information ::= CHOICE {
    fDD     EARFCN-FDD,
    tDD     EARFCN,
    ...
}

EARFCN-FDD ::= SEQUENCE {
    uL-EARFCN       EARFCN,
    dL-EARFCN       EARFCN
}

E-AGCH-Table-Choice ::= ENUMERATED{table16B, table16B-1, ...}

ECGI ::= SEQUENCE {
    pLMN-Identity           PLMN-Identity,
    e-UTRAN-Cell-ID         BIT STRING (SIZE (28)),
    iE-Extensions           ProtocolExtensionContainer { {ECGI-ExtIEs} } OPTIONAL,
    ...
}

ECGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-DDI-Value ::= INTEGER (0..62)

EDCH-FDD-DL-ControlChannelInformation ::= SEQUENCE {
    eAGCH-ERGCH-EHICH-FDD-ScramblingCode             DL-ScramblingCode                   OPTIONAL,
    eAGCH-ChannelisationCode                        FDD-DL-ChannelisationCodeNumber     OPTIONAL,
    primary-e-RNTI                                  E-RNTI                              OPTIONAL,
    secondary-e-RNTI                                E-RNTI                              OPTIONAL,
    eRGCH-EHICH-ChannelisationCode                  FDD-DL-ChannelisationCodeNumber,
    eRGCH-SignatureSequence                         ERGCH-SignatureSequence             OPTIONAL,
    eHICH-SignatureSequence                         EHICH-SignatureSequence             OPTIONAL,
    serving-Grant-Value                             E-Serving-Grant-Value               OPTIONAL,
    primary-Secondary-Grant-Selector                E-Primary-Secondary-Grant-Selector  OPTIONAL,
    e-RGCH-Release-Indicator                        E-RGCH-Release-Indicator            OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { EDCH-FDD-DL-ControlChannelInformation-ExtIEs } }
    OPTIONAL,
```

```
    ...
}

EDCH-FDD-DL-ControlChannelInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-RGCH-E-HICH-ChannelisationCodeValidityIndicator   CRITICALITY ignore  EXTENSION E-RGCH-E-HICH-ChannelisationCodeValidityIndicator
        PRESENCE optional }|
    { ID id-Default-Serving-Grant-in-DTX-Cycle2                  CRITICALITY ignore  EXTENSION E-Serving-Grant-Value
    PRESENCE optional },
    ...
}
E-RGCH-E-HICH-ChannelisationCodeValidityIndicator ::= ENUMERATED {
    e-RGCH-E-HICH-Channelisation-Code-response-not-valid
}

EDCH-FDD-Information ::= SEQUENCE {
    eDCH-MACdFlows-Information                      EDCH-MACdFlows-Information,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                                    OPTIONAL,
    e-DCH-Maximum-Bitrate                           E-DCH-Maximum-Bitrate                                               OPTIONAL,
    e-DCH-Processing-Overload-Level                 E-DCH-Processing-Overload-Level                                     OPTIONAL,
    e-DCH-Reference-Power-Offset                    E-DCH-Reference-Power-Offset                                        OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { EDCH-FDD-Information-ExtIEs } }      OPTIONAL,
    ...
}

EDCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-PowerOffset-for-SchedulingInfo        CRITICALITY ignore  EXTENSION   E-DCH-PowerOffset-for-SchedulingInfo PRESENCE  optional}|
    { ID id-SixteenQAM-UL-Operation-Indicator           CRITICALITY reject  EXTENSION   SixteenQAM-UL-Operation-Indicator   PRESENCE  optional}|
    { ID id-E-AGCH-Table-Choice                         CRITICALITY ignore  EXTENSION   E-AGCH-Table-Choice           PRESENCE conditional},
    -- The IE shall be present if the SixteenQAM UL Operation Indicator IE is set to "Activate"--
    ...
}

EDCH-FDD-InformationResponse ::= SEQUENCE {
    eDCH-MACdFlow-Specific-InformationResponse          EDCH-MACdFlow-Specific-InformationResponse,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH          HARQ-Process-Allocation-2ms-EDCH                                    OPTIONAL,
    iE-Extensions                                       ProtocolExtensionContainer { { EDCH-FDD-InformationResponse-ExtIEs } }      OPTIONAL,
    ...
}

EDCH-FDD-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


EDCH-MACdFlow-Specific-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF EDCH-MACdFlow-Specific-InformationResponseItem

EDCH-MACdFlow-Specific-InformationResponseItem ::= SEQUENCE {
    eDCH-MACdFlow-ID                                EDCH-MACdFlow-ID,
    bindingID                                       BindingID                                                           OPTIONAL,
    transportLayerAddress                           TransportLayerAddress                                               OPTIONAL,
    hARQ-Process-Allocation-NonSched-2ms-EDCH       HARQ-Process-Allocation-2ms-EDCH                                    OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {EDCH-MACdFlow-Specific-InformationResponseItem-ExtIEs} } OPTIONAL,
    ...
}
```

```
EDCH-MACdFlow-Specific-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotSetupIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotSetupIndicator     PRESENCE optional }, -- FDD only
    ...
}

EDCH-FDD-Information-To-Modify ::= SEQUENCE {
    eDCH-MACdFlow-Specific-Information              EDCH-MACdFlow-Specific-InfoToModifyList,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                                    OPTIONAL,
    e-DCH-Maximum-Bitrate                          E-DCH-Maximum-Bitrate                                               OPTIONAL,
    e-DCH-Processing-Overload-Level                E-DCH-Processing-Overload-Level                                     OPTIONAL,
    e-DCH-Reference-Power-Offset                   E-DCH-Reference-Power-Offset                                        OPTIONAL,
    mACeReset-Indicator                            MACeReset-Indicator                                                 OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer { { EDCH-FDD-Information-To-Modify-ExtIEs } }      OPTIONAL,
    ...
}

EDCH-FDD-Information-To-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-E-DCH-PowerOffset-for-SchedulingInfo        CRITICALITY ignore  EXTENSION   E-DCH-PowerOffset-for-SchedulingInfo       PRESENCE optional}|
{ ID id-SixteenQAM-UL-Operation-Indicator           CRITICALITY reject  EXTENSION   SixteenQAM-UL-Operation-Indicator          PRESENCE optional}|
{ ID id-E-DCH-MACdPDUSizeFormat                     CRITICALITY reject  EXTENSION   E-DCH-MACdPDUSizeFormat                    PRESENCE optional}|
{ ID id-E-DCH-DL-Control-Channel-Grant-Information  CRITICALITY ignore  EXTENSION   E-DCH-DL-Control-Channel-Grant-Information PRESENCE optional}|
{ ID id-E-AGCH-Table-Choice                         CRITICALITY ignore  EXTENSION   E-AGCH-Table-Choice                        PRESENCE
conditional},
-- The IE shall be present if the SixteenQAM UL Operation Indicator IE is set to "Activate"--
...
}
E-DCH-FDD-Update-Information ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-UpdateInformation       E-DCH-MACdFlow-Specific-UpdateInformation                                 OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                                          OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-FDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-FDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-DL-Control-Channel-Change-Information         CRITICALITY ignore  EXTENSION   E-DCH-DL-Control-Channel-Change-Information
    PRESENCE optional},
    ...
}


E-DCH-MACdFlow-Specific-UpdateInformation ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-UpdateInformation-Item

E-DCH-MACdFlow-Specific-UpdateInformation-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                               EDCH-MACdFlow-ID,
    hARQ-Process-Allocation-NonSched-2ms-EDCH       HARQ-Process-Allocation-2ms-EDCH                                          OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
E-DCH-DL-Control-Channel-Change-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF E-DCH-DL-Control-Channel-Change-Information-Item

E-DCH-DL-Control-Channel-Change-Information-Item ::= SEQUENCE {
    e-DCH-RL-ID                             RL-ID,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-DL-Control-Channel-Change-Information-Item-ExtIEs} }OPTIONAL,
    ...
}

E-DCH-DL-Control-Channel-Change-Information-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-DL-Control-Channel-Grant-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF E-DCH-DL-Control-Channel-Grant-Information-Item

E-DCH-DL-Control-Channel-Grant-Information-Item ::= SEQUENCE {
    e-DCH-RL-ID                             RL-ID,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-DL-Control-Channel-Grant-Information-Item-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-DL-Control-Channel-Grant-Information-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}



E-DCH-Grant-Type-Information ::= CHOICE {
    e-DCH-Non-Scheduled-Transmission-Grant      E-DCH-Non-Scheduled-Transmission-Grant-Items,
    e-DCH-Scheduled-Transmission-Grant          NULL,
    ...
}

E-DCH-HARQ-PO-FDD ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)


E-DCH-LogicalChannelInformation ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelInformationItem

E-DCH-LogicalChannelInformationItem ::= SEQUENCE {
    logicalChannelId                LogicalChannelID,
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    schedulingInformation           SchedulingInformation,
    mACes-GuaranteedBitRate         MACes-Guaranteed-Bitrate        OPTIONAL,
    eDCH-DDI-Value                  EDCH-DDI-Value,
    mACd-PDU-Size-List              E-DCH-MACdPDU-SizeList,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-LogicalChannelInformationItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject      EXTENSION   MAC-PDU-SizeExtended    PRESENCE optional}|
    { ID id-MACes-Maximum-Bitrate-LCR       CRITICALITY ignore      EXTENSION   MACes-Maximum-Bitrate-LCR    PRESENCE optional}| --1.28Mcps TDD
only
```

```
    { ID id-UE-AggregateMaximumBitRate-Enforcement-Indicator    CRITICALITY ignore  EXTENSION   UE-AggregateMaximumBitRate-Enforcement-Indicator
    PRESENCE optional},
    ...
}

E-DCH-Maximum-Bitrate ::= INTEGER (0..5742,...,5743..11498)

E-DCH-PowerOffset-for-SchedulingInfo ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-Processing-Overload-Level ::= INTEGER (0..10,...)

E-DCH-Reference-Power-Offset ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-MACdPDU-SizeList ::= SEQUENCE (SIZE (1..maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem

E-DCH-MACdPDU-SizeListItem ::= SEQUENCE {
    mACdPDU-Size                    MACdPDU-Size,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-MACdPDU-SizeListItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-MACdPDU-SizeListItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdPDUSizeFormat ::= ENUMERATED {
    fixedMACdPDU-Size,
    flexibleMACdPDU-Size
}



E-DCH-LogicalChannelToModify ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToModifyItem

E-DCH-LogicalChannelToModifyItem ::= SEQUENCE {
    logicalChannelId                LogicalChannelID,
    schedulingPriorityIndicator     SchedulingPriorityIndicator     OPTIONAL,
    schedulingInformation           SchedulingInformation           OPTIONAL,
    mACes-GuaranteedBitRate         MACes-Guaranteed-Bitrate        OPTIONAL,
    eDCH-DDI-Value                  EDCH-DDI-Value                  OPTIONAL,
    mACd-PDU-Size-List              E-DCH-MACdPDU-SizeToModifyList,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-LogicalChannelToModifyItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelToModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject      EXTENSION   MAC-PDU-SizeExtended    PRESENCE optional}|
    { ID id-MACes-Maximum-Bitrate-LCR       CRITICALITY ignore      EXTENSION   MACes-Maximum-Bitrate-LCR    PRESENCE optional},--1.28Mcps TDD only
    ...
}

E-DCH-MACdPDU-SizeToModifyList ::= SEQUENCE (SIZE (0..maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem
```

```
E-DCH-LogicalChannelToDelete ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToDeleteItem

E-DCH-LogicalChannelToDeleteItem ::= SEQUENCE {
    logicalChannelId                LogicalChannelID,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-LogicalChannelToDeleteItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelToDeleteItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

LogicalChannelID ::= INTEGER (1..15)



EDCH-MACdFlow-ID ::= INTEGER (0..maxNrOfEDCHMACdFlows-1)
EDCH-MACdFlow-ID-LCR ::= INTEGER (0..maxNrOfEDCHMACdFlowsLCR-1)

EDCH-MACdFlows-Information ::= SEQUENCE {
    eDCH-MACdFlow-Specific-Information              EDCH-MACdFlow-Specific-InfoList,
    iE-Extensions                                   ProtocolExtensionContainer { { EDCH-MACdFlow-Information-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-MACdFlow-Multiplexing-List ::= BIT STRING ( SIZE(maxNrOfEDCHMACdFlows) )

EDCH-MACdFlow-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF EDCH-MACdFlow-Specific-InfoItem

EDCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    eDCH-MACdFlow-ID                    EDCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority         OPTIONAL,
    tnlQoS                              TnlQos                              OPTIONAL,
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    maxNr-Retransmissions-EDCH          MaxNr-Retransmissions-EDCH,
    trafficClass                        TrafficClass,
    eDCH-HARQ-PO-FDD                    E-DCH-HARQ-PO-FDD,
    eDCH-MACdFlow-Multiplexing-List     E-DCH-MACdFlow-Multiplexing-List    OPTIONAL,
    eDCH-Grant-Type-Information         E-DCH-Grant-Type-Information        OPTIONAL,
    bundlingModeIndicator               BundlingModeIndicator               OPTIONAL,
    eDCHLogicalChannelInformation       E-DCH-LogicalChannelInformation,
    iE-Extensions                       ProtocolExtensionContainer { { EDCH-MACdFlow-Specific-InfoItem-ExtIEs } }        OPTIONAL,
    ...
}

EDCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-TrCH-SrcStatisticsDescr  CRITICALITY ignore  EXTENSION   TrCH-SrcStatisticsDescr PRESENCE optional },
    ...
}
```

```
EDCH-MACdFlow-Specific-InfoToModifyList ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF EDCH-MACdFlow-Specific-InfoToModifyItem

EDCH-MACdFlow-Specific-InfoToModifyItem ::= SEQUENCE {
    eDCH-MACdFlow-ID                    EDCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority         OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    tnlQoS                              TnlQos                              OPTIONAL,
    maxNr-Retransmissions-EDCH          MaxNr-Retransmissions-EDCH          OPTIONAL,
    trafficClass                        TrafficClass                        OPTIONAL,
    eDCH-HARQ-PO-FDD                    E-DCH-HARQ-PO-FDD                   OPTIONAL,
    eDCH-MACdFlow-Multiplexing-List     E-DCH-MACdFlow-Multiplexing-List    OPTIONAL,
    eDCH-Grant-Type-Information         E-DCH-Grant-Type-Information        OPTIONAL,
    bundlingModeIndicator               BundlingModeIndicator               OPTIONAL,
    eDCH-LogicalChannelToAdd            E-DCH-LogicalChannelInformation     OPTIONAL,
    eDCH-LogicalChannelToModify         E-DCH-LogicalChannelToModify        OPTIONAL,
    eDCH-LogicalChannelToDelete         E-DCH-LogicalChannelToDelete        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { EDCH-MACdFlow-Specific-InfoToModifyItem-ExtIEs } }      OPTIONAL,
    ...
}

EDCH-MACdFlow-Specific-InfoToModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-MACdFlows-To-Delete ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF EDCH-MACdFlows-To-Delete-Item

EDCH-MACdFlows-To-Delete-Item ::= SEQUENCE {
    eDCH-MACdFlow-ID                    EDCH-MACdFlow-ID,
    iE-Extensions                       ProtocolExtensionContainer { { EDCH-MACdFlows-To-Delete-Item-ExtIEs } }       OPTIONAL,
    ...
}

EDCH-MACdFlows-To-Delete-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-RL-Indication ::= ENUMERATED {
    eDCH,
    non-EDCH
}

E-DCH-Non-Scheduled-Transmission-Grant-Items ::= SEQUENCE {
    -- The following IE shall be ignored if id-Ext-Max-Bits-MACe-PDU-non-scheduled is present in E-DCH-Non-Scheduled-Transmission-Grant-Items-
ExtIEs
    maxBits-MACe-PDU-non-scheduled              Max-Bits-MACe-PDU-non-scheduled,
    hARQ-Process-Allocation-NonSched-2ms        HARQ-Process-Allocation-2ms-EDCH
    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    -- The following IE shall be present if the maximum number of bits to be signalled exceeds maxNrOfBits-MACe-PDU-non-scheduled
    { ID id-Ext-Max-Bits-MACe-PDU-non-scheduled     CRITICALITY reject      EXTENSION   Ext-Max-Bits-MACe-PDU-non-scheduled    PRESENCE optional},
    ...
}

E-DCH-TFCI-Table-Index ::= INTEGER (0..1,...,2..7)

E-DCH-Serving-cell-change-informationResponse ::= SEQUENCE {
    e-DCH-serving-cell-outcome-choice       E-DCH-serving-cell-change-choice,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-serving-cell-change-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-informationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-serving-cell-change-choice ::= CHOICE {
    e-DCH-serving-cell-change-successful        E-DCH-serving-cell-change-successful,
    e-DCH-serving-cell-change-unsuccessful      E-DCH-serving-cell-change-unsuccessful,
    ...
}

E-DCH-serving-cell-change-successful ::= SEQUENCE {
    e-DCH-RL-InformationList-Rsp                  E-DCH-RL-InformationList-Rsp,
    iE-Extensions                                 ProtocolExtensionContainer { { E-DCH-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-successful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-RL-InformationList-Rsp ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF E-DCH-RL-InformationList-Rsp-Item

E-DCH-RL-InformationList-Rsp-Item ::= SEQUENCE {
    e-DCH-reconfigured-RL-Id                  RL-ID,
    e-DCH-FDD-DL-Control-Channel-Info         EDCH-FDD-DL-ControlChannelInformation,
    iE-Extensions                             ProtocolExtensionContainer { { E-DCH-RL-InformationList-Rsp-Item-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-RL-InformationList-Rsp-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}



E-DCH-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                         Cause,
    iE-Extensions                 ProtocolExtensionContainer { { E-DCH-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}
```

```
E-DCH-serving-cell-change-unsuccessful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TTI-Length ::= CHOICE {
    two-ms      DTX-Cycle-2ms-Items,
    ten-ms      DTX-Cycle-10ms-Items,
    ...
}

E-DCH-TTI-Length-to-Modify ::= CHOICE {
    two-ms      DTX-Cycle-2ms-to-Modify-Items,
    ten-ms      DTX-Cycle-10ms-to-Modify-Items,
    ...
}

EDPCH-Information-FDD ::= SEQUENCE {
    maxSet-E-DPDCHs                                 Max-Set-E-DPDCHs,
    punctureLimit                                   PunctureLimit,
    e-TFCS-Information                                  E-TFCS-Information,
    e-TTI                                           E-TTI,
    e-DPCCH-PO                                      E-DPCCH-PO,
    e-RGCH-2-IndexStepThreshold                     E-RGCH-2-IndexStepThreshold,
    e-RGCH-3-IndexStepThreshold                     E-RGCH-3-IndexStepThreshold,
    hARQ-Info-for-E-DCH                             HARQ-Info-for-E-DCH,
    hSDSCH-Configured-Indicator                     HSDSCH-Configured-Indicator,
    iE-Extensions                   ProtocolExtensionContainer { { EDPCH-Information-FDD-ExtIEs } }      OPTIONAL,
    ...
}

EDPCH-Information-FDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-MinimumReducedE-DPDCH-GainFactor        CRITICALITY ignore  EXTENSION MinimumReducedE-DPDCH-GainFactor  PRESENCE optional },
    ...
}

EDPCH-Information-RLReconfPrepare-FDD ::= SEQUENCE {
    maxSet-E-DPDCHs                             Max-Set-E-DPDCHs        OPTIONAL,
    punctureLimit                               PunctureLimit           OPTIONAL,
    e-TFCS-Information                          E-TFCS-Information      OPTIONAL,
    e-TTI                                       E-TTI                   OPTIONAL,
    e-DPCCH-PO                                  E-DPCCH-PO              OPTIONAL,
    e-RGCH-2-IndexStepThreshold                 E-RGCH-2-IndexStepThreshold         OPTIONAL,
    e-RGCH-3-IndexStepThreshold                 E-RGCH-3-IndexStepThreshold         OPTIONAL,
    hARQ-Info-for-E-DCH                         HARQ-Info-for-E-DCH                 OPTIONAL,
    hSDSCH-Configured-Indicator                 HSDSCH-Configured-Indicator         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { EDPCH-Information-RLReconfPrepare-FDD-ExtIEs } }        OPTIONAL,
    ...
}

EDPCH-Information-RLReconfPrepare-FDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-MinimumReducedE-DPDCH-GainFactor        CRITICALITY ignore  EXTENSION MinimumReducedE-DPDCH-GainFactor  PRESENCE optional },
    ...
}
```

```
EDPCH-Information-RLReconfRequest-FDD ::= SEQUENCE {
    maxSet-E-DPDCHs                                 Max-Set-E-DPDCHs                                                OPTIONAL,
    punctureLimit                                   PunctureLimit                                                   OPTIONAL,
    e-TFCS-Information                              E-TFCS-Information                                              OPTIONAL,
    e-TTI                                           E-TTI                                                           OPTIONAL,
    e-DPCCH-PO                                      E-DPCCH-PO                                                      OPTIONAL,
    e-RGCH-2-IndexStepThreshold                     E-RGCH-2-IndexStepThreshold                                     OPTIONAL,
    e-RGCH-3-IndexStepThreshold                     E-RGCH-3-IndexStepThreshold                                     OPTIONAL,
    hARQ-Info-for-E-DCH                             HARQ-Info-for-E-DCH                                             OPTIONAL,
    hSDSCH-Configured-Indicator                     HSDSCH-Configured-Indicator                                     OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { EDPCH-Information-RLReconfRequest-FDD-ExtIEs } }        OPTIONAL,
    ...
}

EDPCH-Information-RLReconfRequest-FDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-MinimumReducedE-DPDCH-GainFactor        CRITICALITY ignore  EXTENSION MinimumReducedE-DPDCH-GainFactor  PRESENCE optional },
    ...
}

E-DPCCH-PO ::= INTEGER (0..maxNrOfEDPCCH-PO-QUANTSTEPs)

E-DPDCH-PowerInterpolation ::= BOOLEAN

E-Primary-Secondary-Grant-Selector ::= ENUMERATED {
    primary,
    secondary
}

EHICH-SignatureSequence ::= INTEGER  (0..maxNrofSigSeqERGHICH-1)


E-RGCH-Release-Indicator ::= ENUMERATED {e-RGCHreleased}

ERGCH-SignatureSequence ::= INTEGER  (0..maxNrofSigSeqERGHICH-1)

E-Serving-Grant-Value ::= INTEGER (0..38)

E-RGCH-2-IndexStepThreshold ::= INTEGER (0..37)

E-RGCH-3-IndexStepThreshold ::= INTEGER (0..37)


EDCH-Serving-RL ::= CHOICE {
    e-DCH-Serving-RL-in-this-DRNS           EDCH-Serving-RL-in-this-DRNS,
    e-DCH-Serving-RL-not-in-this-DRNS       NULL,
    ...
}

EDCH-Serving-RL-in-this-DRNS ::= SEQUENCE {
    e-DCH-Serving-RL-Id             RL-ID,
    iE-Extensions                   ProtocolExtensionContainer { { EDCH-Serving-RL-in-this-DRNS-ExtIEs} }          OPTIONAL,
    ...
}
```

```
EDCH-Serving-RL-in-this-DRNS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Enhanced-FACH-Information-ResponseFDD ::= SEQUENCE {
    common-HS-DSCH-RNTI-priorityQueueInfo-EnhancedFACH                PriorityQueue-InfoList-EnhancedFACH-PCH,
    dedicated-HS-DSCH-RNTI-priorityQueueInfo-EnhancedFACH             PriorityQueue-InfoList-EnhancedFACH-PCH,
    priorityQueueInfo-EnhancedPCH             PriorityQueue-InfoList-EnhancedFACH-PCH                  OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation                    HSDSCH-Initial-Capacity-Allocation,
    hSDSCH-RNTI                                           HSDSCH-RNTI                                                 OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Enhanced-FACH-Information-ResponseFDD-ExtIEs } }       OPTIONAL,
    ...
}

Enhanced-FACH-Information-ResponseFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Enhanced-FACH-Information-ResponseLCR ::= SEQUENCE {
    common-HS-DSCH-RNTI-priorityQueueInfo-EnhancedFACH                PriorityQueue-InfoList-EnhancedFACH-PCH,
    dedicated-HS-DSCH-RNTI-priorityQueueInfo-EnhancedFACH             PriorityQueue-InfoList-EnhancedFACH-PCH,
    priorityQueueInfo-EnhancedPCH             PriorityQueue-InfoList-EnhancedFACH-PCH                  OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation                    HSDSCH-Initial-Capacity-Allocation,
    hSDSCH-RNTI                                           HSDSCH-RNTI                                                 OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Enhanced-FACH-Information-ResponseLCR-ExtIEs } }       OPTIONAL,
    ...
}

Enhanced-FACH-Information-ResponseLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Enhanced-FACH-Support-Indicator ::= NULL

EnhancedHSServingCC-Abort ::= ENUMERATED {abortEnhancedHSServingCC,...}


Enhanced-PCH-Capability ::= ENUMERATED {
    enhanced-pch-capable,
    enhanced-pch-not-capable
}


E-RNTI ::= INTEGER (0..65535)

E-TFCI ::= INTEGER (0..127)

E-TFCI-BetaEC-Boost ::= INTEGER (0..127,...)


E-TFCI-Boost-Information ::= SEQUENCE {
    e-TFCI-BetaEC-Boost                       E-TFCI-BetaEC-Boost,
    uL-Delta-T2TP                             UL-Delta-T2TP           OPTIONAL,
    -- This IE shall be present if the E-TFCI BetaEC Boost IE value is not set to 127.
```

```
    iE-Extensions                                   ProtocolExtensionContainer { { E-TFCI-Boost-Information-ExtIEs} }    OPTIONAL,
    ...
}

E-TFCI-Boost-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-TFCS-Information ::= SEQUENCE {
    e-DCH-TFCI-Table-Index                              E-DCH-TFCI-Table-Index,
    e-DCH-Min-Set-E-TFCI                            E-TFCI,
    reference-E-TFCI-Information                    Reference-E-TFCI-Information,
    iE-Extensions                                   ProtocolExtensionContainer { {E-TFCS-Information-ExtIEs} }        OPTIONAL,
    ...

}

E-TFCS-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-Minimum-Set-E-TFCIValidityIndicator   CRITICALITY reject  EXTENSION E-DCH-Minimum-Set-E-TFCIValidityIndicator   PRESENCE optional
}|
    { ID id-E-TFCI-Boost-Information                    CRITICALITY reject  EXTENSION E-TFCI-Boost-Information                    PRESENCE optional
}|
    { ID id-E-DPDCH-PowerInterpolation                  CRITICALITY reject  EXTENSION E-DPDCH-PowerInterpolation                  PRESENCE optional
},
    ...
}

E-DCH-Minimum-Set-E-TFCIValidityIndicator ::= ENUMERATED {
    e-DCH-Minimum-Set-E-TFCI-response-not-valid
}

E-TTI  ::= ENUMERATED {
    tti10,
    tti2
-- 10ms TTI, 2ms TTI
}

E-AGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

E-RGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

E-HICH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

Enhanced-PrimaryCPICH-EcNo          ::= INTEGER (0..49)

EventA ::= SEQUENCE {
    measurementTreshold     MeasurementThreshold,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
```

```
    iE-Extensions           ProtocolExtensionContainer { {EventA-ExtIEs} } OPTIONAL,
    ...
}

EventA-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EventB ::= SEQUENCE {
    measurementTreshold     MeasurementThreshold,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventB-ExtIEs} } OPTIONAL,
    ...
}

EventB-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


EventC ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold    MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime       MeasurementChangeTime,
    iE-Extensions           ProtocolExtensionContainer { {EventC-ExtIEs} } OPTIONAL,
    ...
}

EventC-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EventD ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold    MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime       MeasurementChangeTime,
    iE-Extensions           ProtocolExtensionContainer { {EventD-ExtIEs} } OPTIONAL,
    ...
}

EventD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EventE ::= SEQUENCE {
    measurementThreshold1       MeasurementThreshold,
    measurementThreshold2       MeasurementThreshold            OPTIONAL,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    reportPeriodicity           ReportPeriodicity           OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventE-ExtIEs} } OPTIONAL,
    ...
}

EventE-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
EventF ::= SEQUENCE {
    measurementThreshold1       MeasurementThreshold,
    measurementThreshold2       MeasurementThreshold            OPTIONAL,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    reportPeriodicity       ReportPeriodicity           OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventF-ExtIEs} } OPTIONAL,
    ...
}

EventF-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ExtendedGSMCellIndividualOffset ::= INTEGER (-50..-11|11..50)

E-DCH-Information ::= SEQUENCE {
    e-PUCH-Information                          E-PUCH-Information,
    e-TFCS-Information-TDD                      E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD             E-DCH-MACdFlows-Information-TDD,
    e-DCH-TDD-Information                       E-DCH-TDD-Information,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Information-ExtIEs} }          OPTIONAL,
    ...
}

E-DCH-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-Information  ::= SEQUENCE {
    minCR                                       CodeRate,
    maxCR                                       CodeRate,
    harqInfo                                    HARQ-Info-for-E-DCH,
    n-E-UCCH                                    N-E-UCCH,
    iE-Extensions                               ProtocolExtensionContainer { { E-PUCH-Information-ExtIEs } }        OPTIONAL,
    ...
}

E-PUCH-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-TFCS-Information-TDD  ::= SEQUENCE {
    e-DCH-QPSK-RefBetaInfo                      E-DCH-QPSK-RefBetaInfo,
    e-DCH-sixteenQAM-RefBetaInfo                E-DCH-sixteenQAM-RefBetaInfo,
    iE-Extensions                               ProtocolExtensionContainer { { E-TFCS-Information-TDD-ExtIEs } }    OPTIONAL,
    ...
}

E-TFCS-Information-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-QPSK-RefBetaInfo ::= SEQUENCE (SIZE (1..maxNrOfRefBetas)) OF E-DCH-RefBeta-Item
```

```
E-DCH-sixteenQAM-RefBetaInfo ::= SEQUENCE (SIZE (1..maxNrOfRefBetas)) OF E-DCH-RefBeta-Item

E-DCH-RefBeta-Item  ::= SEQUENCE {
    refCodeRate             CodeRate-short,
    refBeta                 RefBeta
}

E-DCH-MACdFlows-Information-TDD  ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-InfoTDDItem

E-DCH-MACdFlow-InfoTDDItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                       EDCH-MACdFlow-ID,
    allocationRetentionPriority             AllocationRetentionPriority,
    tnlQos                                  TnlQos                      OPTIONAL,
    bindingID                               BindingID                   OPTIONAL,
    transportLayerAddress                   TransportLayerAddress       OPTIONAL,
    payloadCRC-PresenceIndicator            PayloadCRC-PresenceIndicator,
    maximum-Number-of-Retransmissions-For-E-DCH     MaxNr-Retransmissions-EDCH,
    eDCH-HARQ-PO-TDD                        E-DCH-HARQ-PO-TDD,
    eDCH-MACdFlow-Multiplexing-List         E-DCH-MACdFlow-Multiplexing-List                    OPTIONAL,
    eDCH-Grant-TypeTDD                      E-DCH-Grant-TypeTDD,
    eDCHLogicalChannelInformation           E-DCH-LogicalChannelInformation,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-MACdFlow-InfoTDDItem-ExtIEs} }          OPTIONAL,
    ...
}

E-DCH-MACdFlow-InfoTDDItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-eDCH-MACdFlow-Retransmission-Timer-LCR  CRITICALITY ignore      EXTENSION E-DCH-MACdFlow-Retransmission-Timer-LCR     PRESENCE optional
}|
    { ID id-TrafficClass                            CRITICALITY ignore      EXTENSION TrafficClass                                PRESENCE
mandatory},
    ...
}


E-DCH-MACdFlow-Retransmission-Timer-LCR ::= ENUMERATED {
ms10, ms15, ms20, ms25, ms30, ms35, ms40, ms45, ms50, ms55, ms60, ms65, ms70, ms75, ms80, ms85, ms90,
ms95, ms100, ms110, ms120, ms140, ms160, ms200, ms240, ms280, ms320, ms400, ms480, ms560,...
}

E-DCH-HARQ-PO-TDD ::= INTEGER (0..6)

E-DCH-Grant-TypeTDD ::= ENUMERATED {
    scheduled,
    non-scheduled
}

E-DCH-TimeslotResource ::= BIT STRING (SIZE (13))

E-DCH-PowerResource ::= INTEGER(1..32)

TddE-PUCH-Offset ::= INTEGER(0..255)

E-DCH-TDD-Information  ::= SEQUENCE {
```

```
    e-DCH-TDD-Maximum-Bitrate                   E-DCH-TDD-Maximum-Bitrate                                       OPTIONAL,
    e-DCH-Processing-Overload-Level             E-DCH-Processing-Overload-Level                                 OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo        E-DCH-PowerOffset-for-SchedulingInfo                            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-TDD-Information-ExtIEs } }  OPTIONAL,
    ...
}

E-DCH-TDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Maximum-Bitrate ::= INTEGER (0..9201,...)

E-DCH-Information-Reconfig ::= SEQUENCE {
    e-PUCH-Information                      E-PUCH-Information                                               OPTIONAL,
    e-TFCS-Information-TDD                  E-TFCS-Information-TDD                                           OPTIONAL,
    e-DCH-MACdFlows-to-Add                  E-DCH-MACdFlows-Information-TDD                                  OPTIONAL,
    e-DCH-MACdFlows-to-Delete               EDCH-MACdFlows-To-Delete                                        OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info          E-DCH-Non-Scheduled-Grant-Info                                  OPTIONAL,
    e-DCH-TDD-Information                   E-DCH-TDD-Information                                           OPTIONAL,
    e-DCH-TDD-Information-to-Modify         E-DCH-TDD-Information-to-Modify                                 OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-Information-Reconfig-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-Information-Reconfig-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Information-to-Modify ::= SEQUENCE {
    e-DCH-TDD-Information-to-Modify-List    E-DCH-TDD-Information-to-Modify-List    OPTIONAL,
    mACeReset-Indicator                     MACeReset-Indicator                     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-TDD-Information-to-Modify-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-TDD-Information-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-MACdPDUSizeFormat                 CRITICALITY reject  EXTENSION   E-DCH-MACdPDUSizeFormat             PRESENCE optional},
    ...
}
E-DCH-TDD-Information-to-Modify-List ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-ModifyTDDItem

E-DCH-MACdFlow-ModifyTDDItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           EDCH-MACdFlow-ID,
    allocationRetentionPriority                 AllocationRetentionPriority     OPTIONAL,
    transportBearerRequestIndicator             TransportBearerRequestIndicator,
    bindingID                                   BindingID                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress       OPTIONAL,
    tnlQos                                      TnlQos                      OPTIONAL,
    maximum-Number-of-Retransmissions-For-E-DCH MaxNr-Retransmissions-EDCH      OPTIONAL,
    eDCH-HARQ-PO-TDD                            E-DCH-HARQ-PO-TDD                                   OPTIONAL,
    eDCH-MACdFlow-Multiplexing-List             E-DCH-MACdFlow-Multiplexing-List                    OPTIONAL,
    eDCH-Grant-TypeTDD                          E-DCH-Grant-TypeTDD                                 OPTIONAL,
    e-DCH-LogicalChannelToAdd                   E-DCH-LogicalChannelInformation                                 OPTIONAL,
```

```
    e-DCH-LogicalChannelToModify                E-DCH-LogicalChannelToModify                                    OPTIONAL,
    e-DCH-LogicalChannelToDelete                E-DCH-LogicalChannelToDelete                                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { {E-DCH-MACdFlow-ModifyTDDItem-ExtIEs } }OPTIONAL,
    ...
}

E-DCH-MACdFlow-ModifyTDDItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-eDCH-MACdFlow-Retransmission-Timer-LCR      CRITICALITY ignore      EXTENSION E-DCH-MACdFlow-Retransmission-Timer-LCR       PRESENCE
optional }|
    { ID id-TrafficClass                                CRITICALITY ignore      EXTENSION TrafficClass                                  PRESENCE
optional},
    ...
}

E-DCH-Information-Response ::= SEQUENCE {
    e-DCH-TDD-MACdFlow-Specific-InformationResp     E-DCH-TDD-MACdFlow-Specific-InformationResp OPTIONAL,
    e-AGCH-Specific-Information-ResponseTDD         E-AGCH-Specific-InformationRespListTDD  OPTIONAL,
    e-HICH-Information-Response                     E-HICH-InformationResp  OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info                  E-DCH-Non-Scheduled-Grant-Info  OPTIONAL,
    e-RNTI                                          E-RNTI,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-Information-Response-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-TDD-MACdFlow-Specific-InformationResp-Item

E-DCH-TDD-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    e-DCH-MacdFlow-Id                               EDCH-MACdFlow-ID,
    bindingID                                       BindingID                   OPTIONAL,
    transportLayerAddress                           TransportLayerAddress       OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-TDD-MACdFlow-Specific-InformationRespItem-ExtIEs } }
    OPTIONAL,
    ...
}

E-DCH-TDD-MACdFlow-Specific-InformationRespItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Specific-InformationRespListTDD ::= SEQUENCE (SIZE (1..maxNrOfEAGCHCodes)) OF E-AGCH-Specific-InformationResp-ItemTDD

E-AGCH-Specific-InformationResp-ItemTDD ::= SEQUENCE {
    timeslot                                        TimeSlot,
    midambleShiftAndBurstType                       MidambleShiftAndBurstType,
    tDD-ChannelisationCode                          TDD-ChannelisationCode,
    iE-Extensions                                   ProtocolExtensionContainer { { E-AGCH-Specific-InformationResp-ItemTDD-ExtIEs } }   OPTIONAL,
    ...
}

E-AGCH-Specific-InformationResp-ItemTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

E-HICH-InformationResp::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    e-HICH-TimeOffset                           E-HICH-TimeOffset,
    iE-Extensions                               ProtocolExtensionContainer { { E-HICH-InformationResp-ExtIEs } }     OPTIONAL,
    ...
}

E-HICH-InformationResp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-TimeOffset ::= INTEGER (4..44)

E-DCH-Non-Scheduled-Grant-Info  ::= SEQUENCE {
    timeslotResource                            E-DCH-TimeslotResource,
    powerResource                               E-DCH-PowerResource,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    tddE-PUCH-Offset                            TddE-PUCH-Offset,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-768-Information ::= SEQUENCE {
    e-PUCH-Information                          E-PUCH-Information,
    e-TFCS-Information-TDD                      E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD             E-DCH-MACdFlows-Information-TDD,
    e-DCH-TDD-Information768                    E-DCH-TDD-Information768,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-768-Information-ExtIEs} }        OPTIONAL,
    ...
}

E-DCH-768-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Information768  ::= SEQUENCE {
    e-DCH-TDD-Maximum-Bitrate768                E-DCH-TDD-Maximum-Bitrate768                                    OPTIONAL,
    e-DCH-Processing-Overload-Level             E-DCH-Processing-Overload-Level                                 OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo        E-DCH-PowerOffset-for-SchedulingInfo                            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-TDD-Information768-ExtIEs } }   OPTIONAL,
    ...
}
```

```
E-DCH-TDD-Information768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Maximum-Bitrate768 ::= INTEGER (0..17713,...)

E-DCH-768-Information-Reconfig ::= SEQUENCE {
    e-PUCH-Information                          E-PUCH-Information                                                   OPTIONAL,
    e-TFCS-Information-TDD                      E-TFCS-Information-TDD                                               OPTIONAL,
    e-DCH-MACdFlows-to-Add                      E-DCH-MACdFlows-Information-TDD                                      OPTIONAL,
    e-DCH-MACdFlows-to-Delete                   EDCH-MACdFlows-To-Delete                                            OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info768           E-DCH-Non-Scheduled-Grant-Info768                                    OPTIONAL,
    e-DCH-TDD-Information768                    E-DCH-TDD-Information768                                             OPTIONAL,
    e-DCH-TDD-Information-to-Modify             E-DCH-TDD-Information-to-Modify                                      OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-768-Information-Reconfig-ExtIEs} }     OPTIONAL,
    ...
}

E-DCH-768-Information-Reconfig-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
E-DCH-768-Information-Response ::= SEQUENCE {
    e-DCH-TDD-MACdFlow-Specific-InformationResp     E-DCH-TDD-MACdFlow-Specific-InformationResp OPTIONAL,
    e-AGCH-Specific-Information-Response768TDD      E-AGCH-Specific-InformationRespList768TDD   OPTIONAL,
    e-HICH-Information-Response768                  E-HICH-InformationResp768   OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info768               E-DCH-Non-Scheduled-Grant-Info768   OPTIONAL,
    e-RNTI                                          E-RNTI,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-768-Information-Response-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-768-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Specific-InformationRespList768TDD ::= SEQUENCE (SIZE (1..maxNrOfEAGCHCodes)) OF E-AGCH-Specific-InformationResp-Item768TDD

E-AGCH-Specific-InformationResp-Item768TDD ::= SEQUENCE {
    timeslot                                        TimeSlot,
    midambleShiftAndBurstType768                    MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768                       TDD-ChannelisationCode768,
    iE-Extensions                                   ProtocolExtensionContainer { { E-AGCH-Specific-InformationResp-Item768TDD-ExtIEs } }
    OPTIONAL,
    ...
}

E-AGCH-Specific-InformationResp-Item768TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-InformationResp768::= SEQUENCE {
    timeslot                                        TimeSlot,
    midambleShiftAndBurstType768                    MidambleShiftAndBurstType768,
```

```
    tDD-ChannelisationCode768                   TDD-ChannelisationCode768,
    e-HICH-TimeOffset                           E-HICH-TimeOffset,
    iE-Extensions                               ProtocolExtensionContainer { { E-HICH-InformationResp768-ExtIEs } }     OPTIONAL,
    ...
}

E-HICH-InformationResp768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Non-Scheduled-Grant-Info768  ::= SEQUENCE {
    timeslotResource                        E-DCH-TimeslotResource,
    powerResource                           E-DCH-PowerResource,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tddE-PUCH-Offset                        TddE-PUCH-Offset,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info768-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-LCR-Information ::= SEQUENCE {
    e-PUCH-LCR-Information                  E-PUCH-LCR-Information,
    e-TFCS-Information-TDD                  E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD         E-DCH-MACdFlows-Information-TDD,
    e-DCH-LCR-TDD-Information               E-DCH-LCR-TDD-Information,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-Information-LCR-ExtIEs} }        OPTIONAL,
    ...
}

E-DCH-Information-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-LCR-Information  ::= SEQUENCE {
    minCR                                   CodeRate,
    maxCR                                   CodeRate,
    harqInfo                                HARQ-Info-for-E-DCH,
    pRxdesBase                              E-PUCH-PRXdesBase,
    e-PUCH-TPC-Step-Size                    TDD-TPC-UplinkStepSize-LCR,
    n-E-UCCH-LCR                            N-E-UCCH-LCR,
    iE-Extensions                           ProtocolExtensionContainer { { E-PUCH-Information-LCR-ExtIEs } }      OPTIONAL,
    ...
}

E-PUCH-Information-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-PUCH-PowerControlGAP      CRITICALITY ignore      EXTENSION ControlGAP        PRESENCE optional       },
    ...
}
```

```
E-PUCH-PRXdesBase  ::= INTEGER(-112..-50)
--SETP=1

E-DCH-LCR-TDD-Information  ::= SEQUENCE {
    e-DCH-Physical-Layer-Category-LCR          E-DCH-Physical-Layer-Category-LCR                                  OPTIONAL,
    e-DCH-Processing-Overload-Level            E-DCH-Processing-Overload-Level                                    OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo       E-DCH-PowerOffset-for-SchedulingInfo                               OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { E-DCH-LCR-TDD-Information-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-LCR-TDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory                    CRITICALITY reject                    EXTENSION Extended-E-DCH-LCRTDD-
PhysicalLayerCategory      PRESENCE optional }|
    -- This IE shall be used if the E-DCH Physical Layer Category has a value larger than 5.
    { ID id-MaximumNumber-Of-Retransmission-For-SchedulingInfo-LCRTDD      CRITICALITY ignore                    EXTENSION MaxNr-Retransmissions-
EDCH                          PRESENCE optional }|
    { ID id-E-DCH-RetransmissionTimer-For-SchedulingInfo-LCRTDD            CRITICALITY ignore                    EXTENSION E-DCH-MACdFlow-
Retransmission-Timer-LCR    PRESENCE optional }|
    { ID id-E-AGCH-UE-Inactivity-Monitor-Threshold                         CRITICALITY ignore                    EXTENSION E-AGCH-UE-Inactivity-
Monitor-Threshold   PRESENCE optional },
    ...
}

E-DCH-Physical-Layer-Category-LCR ::= INTEGER (1..5)

Extended-E-DCH-LCRTDD-PhysicalLayerCategory ::= INTEGER (6,...)

E-DCH-LCR-Information-Reconfig ::= SEQUENCE {
    e-PUCH-LCR-Information                     E-PUCH-LCR-Information                                             OPTIONAL,
    e-TFCS-Information-TDD                     E-TFCS-Information-TDD                                             OPTIONAL,
    e-DCH-MACdFlows-to-Add                     E-DCH-MACdFlows-Information-TDD                                    OPTIONAL,
    e-DCH-MACdFlows-to-Delete                  EDCH-MACdFlows-To-Delete                                           OPTIONAL,
    e-DCH-LCR-TDD-Information                  E-DCH-LCR-TDD-Information                                          OPTIONAL,
    e-DCH-TDD-Information-to-Modify            E-DCH-TDD-Information-to-Modify                                    OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { E-DCH-Information-Reconfig-LCR-ExtIEs} }     OPTIONAL,
    ...
}

E-DCH-Information-Reconfig-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-LCR-Information-Response ::= SEQUENCE {
    e-DCH-TDD-MACdFlow-Specific-InformationResp     E-DCH-TDD-MACdFlow-Specific-InformationResp OPTIONAL,
    e-AGCH-Specific-Information-Response-LCR-TDD    E-AGCH-Specific-InformationRespList-LCR-TDD OPTIONAL,
    e-HICH-Specific-Information-Response-LCR        E-HICH-Specific-InformationResp-LCR OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info-LCR              E-DCH-Non-Scheduled-Grant-Info-LCR  OPTIONAL,
    e-RNTI                                          E-RNTI  OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-Information-Response-LCR-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-Information-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

E-AGCH-Specific-InformationRespList-LCR-TDD ::= SEQUENCE (SIZE (1..maxNrOfEAGCHCodes)) OF E-AGCH-Specific-InformationResp-Item-LCR-TDD

E-AGCH-Specific-InformationResp-Item-LCR-TDD ::= SEQUENCE {
    timeSlotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { E-AGCH-Specific-InformationResp-ItemTDD-LCR-ExtIEs } }
    OPTIONAL,
    ...
}

E-AGCH-Specific-InformationResp-ItemTDD-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-Specific-InformationResp-LCR::= SEQUENCE {
    e-HICH-Scheduled-InformationResp-LCR        E-HICH-Scheduled-InformationRespList-LCR-TDD                OPTIONAL,
    e-HICH-non-Scheduled-InformationResp-LCR    E-HICH-InformationResp-LCR                                  OPTIONAL,
    e-HICH-TimeOffset-lcr                       E-HICH-TimeOffset-LCR,
    iE-Extensions                               ProtocolExtensionContainer { { E-HICH-Specific-InformationResp-LCR-ExtIEs } }    OPTIONAL,
    ...
}

E-HICH-Specific-InformationResp-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-HICH-Scheduled-InformationRespList-LCR-TDD ::= SEQUENCE (SIZE (1..maxNrOfEHICHCodes)) OF E-HICH-Scheduled-InformationResp-Item-LCR-TDD

E-HICH-Scheduled-InformationResp-Item-LCR-TDD ::= SEQUENCE {
    e-HICH-EI                                   E-HICH-EI,
    e-HICH-Scheduled-InformationResp-LCR        E-HICH-InformationResp-LCR,
    iE-Extensions                               ProtocolExtensionContainer { { E-HICH-Scheduled-InformationResp-LCR-ExtIEs } }    OPTIONAL,
    ...
}

E-HICH-Scheduled-InformationResp-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-HICH-EI ::= INTEGER (0..3)

E-HICH-InformationResp-LCR::= SEQUENCE {
    timeSlotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    signatureSequenceGroupIndex                 SignatureSequenceGroupIndex,
    iE-Extensions                               ProtocolExtensionContainer { { E-HICH-InformationResp-LCR-ExtIEs } }    OPTIONAL,
    ...
```

```
}


E-HICH-InformationResp-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-HICH-TimeOffset-LCR ::= INTEGER (4..15)

E-DCH-SubframeNumber-LCR ::= ENUMERATED{s0,s1}

E-DCH-TimeslotResource-LCR ::= BIT STRING (SIZE (5))

E-DCH-Non-Scheduled-Grant-Info-LCR  ::= SEQUENCE {
    timeslotResource-LCR                        E-DCH-TimeslotResource-LCR,
    powerResource                               E-DCH-PowerResource,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    subframenumber                              E-DCH-SubframeNumber-LCR,
    tddE-PUCH-Offset                            TddE-PUCH-Offset,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info-LCR-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Enabling-Delay ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128}
-- Unit radio frame


Ext-Reference-E-TFCI-PO ::= INTEGER(30..31,...)

ExtendedPropagationDelay ::= INTEGER(255..1023)

Extended-RNC-ID                 ::= INTEGER (4096..65535)

Extended-Round-Trip-Time-Value ::= INTEGER(32767..103041)
-- See also mapping in [23]

Ext-Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(19983..22978,...)

E-DCH-Semi-PersistentScheduling-Information-LCR ::= SEQUENCE {
    repetition-Period-List-LCR              Repetition-Period-List-LCR,
    e-DCH-SPS-Indicator                     E-DCH-SPS-Indicator,
    e-DCH-SPS-Reservation-Indicator         SPS-Reservation-Indicator       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-Semi-PersistentScheduling-Information-LCR-ExtIEs } }
    OPTIONAL,
    ...
}
```

```
E-DCH-Semi-PersistentScheduling-Information-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-SPS-Indicator ::= BIT STRING (SIZE (16))

E-DCH-Semi-PersistentScheduling-Information-to-Modify-LCR ::= SEQUENCE {
    repetition-Period-List-LCR              Repetition-Period-List-LCR      OPTIONAL,
    e-DCH-SPS-Indicator                     E-DCH-SPS-Indicator             OPTIONAL,
    e-DCH-SPS-Reservation-Indicator         SPS-Reservation-Indicator       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-Semi-PersistentScheduling-Information-to-Modify-LCR-ExtIEs } }
        OPTIONAL,
    ...
}

E-DCH-Semi-PersistentScheduling-Information-to-Modify-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Semi-PersistentScheduling-Information-ResponseLCR ::= SEQUENCE {
    initial-E-DCH-SPS-resource                  Initial-E-DCH-SPS-resource          OPTIONAL,
    e-DCH-SPS-HICH-Information                  E-DCH-SPS-HICH-Information          OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Semi-PersistentScheduling-Information-ResponseLCR-ExtIEs } }
            OPTIONAL,
    ...
}

E-DCH-Semi-PersistentScheduling-Information-ResponseLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Initial-E-DCH-SPS-resource ::= SEQUENCE {
    timeslot-Resource-Related-Information       E-DCH-TimeslotResource-LCR,
    powerResource                               E-DCH-PowerResource,
    repetitionPeriodIndex                       RepetitionPeriodIndex,
    repetitionLength                            RepetitionLength,
    subframeNumber                              ENUMERATED {v0, v1},
    tddE-PUCH-Offset                            TddE-PUCH-Offset,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    n-E-UCCHLCR                                 N-E-UCCH-LCR,
    iE-Extensions                               ProtocolExtensionContainer { { Initial-E-DCH-SPS-resource-ExtIEs } }        OPTIONAL,
    ...
}

Initial-E-DCH-SPS-resource-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-SPS-HICH-Information ::= SEQUENCE {
    e-HICH-Configuration                        E-HICH-Configuration,
    signatureSequenceGroupIndex             SignatureSequenceGroupIndex,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-SPS-HICH-Information-ExtIEs } }        OPTIONAL,
```

```
    ...
}


E-DCH-SPS-HICH-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-HICH-Configuration ::= CHOICE {
    same-As-Scheduled-E-HICH           Same-As-Scheduled-E-HICH,
    explicit                           E-HICH-InformationResp-ExplicitConfiguration-LCR,
    ...
}


Same-As-Scheduled-E-HICH ::= SEQUENCE {
    e-HICH-EI                                  E-HICH-EI,
    ...
}

E-HICH-InformationResp-ExplicitConfiguration-LCR ::= SEQUENCE {
    timeSlotLCR                                    TimeSlotLCR,
    midambleShiftLCR                               MidambleShiftLCR,
    tDD-ChannelisationCode                         TDD-ChannelisationCode,
    iE-Extensions                                  ProtocolExtensionContainer { { E-HICH-InformationResp-ExplicitConfiguration-LCR-ExtIEs } }
    OPTIONAL,
    ...
}

E-HICH-InformationResp-ExplicitConfiguration-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- F

FACH-FlowControlInformation ::= SEQUENCE (SIZE (1..16)) OF FACH-FlowControlInformationItem

FACH-FlowControlInformationItem ::= SEQUENCE {
    fACH-SchedulingPriority         SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths            MAC-c-sh-SDU-LengthList,
    fACH-InitialWindowSize          FACH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { {FACH-FlowControlInformationItem-ExtIEs} } OPTIONAL,
    ...
}

FACH-FlowControlInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-InitialWindowSize          ::= INTEGER { unlimited(255) } (0..255)
-- Number of frames MAC-c-sh SDUs.
-- 255 = Unlimited number of FACH data frames
```

```
FACH-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfFACHs)) OF FACH-InformationItem

FACH-InformationItem ::= SEQUENCE {
    transportFormatSet              TransportFormatSet,
    iE-Extensions                   ProtocolExtensionContainer { { FACH-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

FACH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Fast-Reconfiguration-Mode ::= ENUMERATED {fast,...}
Fast-Reconfiguration-Permission ::= ENUMERATED {allowed,...}

FDD-DCHs-to-Modify              ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem

FDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode                          UL-FP-Mode      OPTIONAL,
    toAWS                               ToAWS       OPTIONAL,
    toAWE                               ToAWE       OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    dCH-SpecificInformationList         FDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions                       ProtocolExtensionContainer { {FDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
    ...
}

FDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                      CRITICALITY     ignore      EXTENSION   TnlQos  PRESENCE  optional },
    ...
}

FDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifySpecificItem

FDD-DCHs-to-ModifySpecificItem ::=  SEQUENCE {
    dCH-ID                          DCH-ID,
    ul-TransportformatSet           TransportFormatSet      OPTIONAL,
    dl-TransportformatSet           TransportFormatSet      OPTIONAL,
    allocationRetentionPriority     AllocationRetentionPriority     OPTIONAL,
    frameHandlingPriority           FrameHandlingPriority       OPTIONAL,
    not-Used-dRACControl                        NULL        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {FDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    ...
}

FDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information         CRITICALITY ignore      EXTENSION Guaranteed-Rate-Information      PRESENCE optional }|
    { ID id-TrafficClass                        CRITICALITY ignore      EXTENSION TrafficClass                     PRESENCE optional }|
    { ID id-Unidirectional-DCH-Indicator        CRITICALITY reject      EXTENSION Unidirectional-DCH-Indicator     PRESENCE optional},
    ...
}
```

```
FDD-DL-ChannelisationCodeNumber     ::= INTEGER (0..511)
-- According to the mapping in [27]. The maximum value is equal to the DL spreading factor -1--

FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF FDD-DL-CodeInformationItem

FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode                                   DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber                     FDD-DL-ChannelisationCodeNumber,
    transmission-Gap-Pattern-Sequence-ScramblingCode-Information       Transmission-Gap-Pattern-Sequence-ScramblingCode-Information OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {FDD-DL-CodeInformationItem-ExtIEs} } OPTIONAL,
    ...
}

FDD-DL-CodeInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    step-size1-5,
    step-size2,
    ...
}

SchedulingPriorityIndicator             ::= INTEGER { lowest(0), highest(15) } (0..15)

F-DPCH-SlotFormat ::= INTEGER (0..9)

F-DPCH-SlotFormatSupportRequest ::= NULL

FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
    not-first-RLS
}

FNReportingIndicator ::= ENUMERATED {
    fN-reporting-required,
    fN-reporting-not-required
}

FPACH-Information ::= SEQUENCE {
    timeSlotLCR                 TimeSlotLCR,
    tDD-ChannelisationCodeLCR   TDD-ChannelisationCodeLCR,
    midambleShiftLCR            MidambleShiftLCR,
    wT                          INTEGER (1..4),
    ...
    }

FrameHandlingPriority           ::= INTEGER { lowest(0), highest(15) } (0..15)

FrameOffset             ::= INTEGER (0..255)
-- Frames
```

```
FrequencyBandIndicator      ::= ENUMERATED {
    bandI,
    bandII,
    bandIII,
    bandIV,
    bandV,
    bandVI,
    bandVII,
    bandVIII,
    bandIX,
    bandX,
    bandXI,
    bandXII,
    bandXIII,
    bandXIV,
    bandXV,
    bandXVI,
    bandXVII,
    bandXVIII,
    bandXIX,
    bandXX,
    bandXXI,
    bandXXII,
    ...
}


-- G

GapLength               ::= INTEGER (1..14)
-- Unit Slot

GapDuration             ::= INTEGER (1..144,...)
-- Unit Frame

GA-Cell ::= SEQUENCE (SIZE (1..maxNrOfPoints)) OF
    SEQUENCE {
        cell-GAIgeographicalCoordinate      GeographicalCoordinate,
        iE-Extensions           ProtocolExtensionContainer { {GA-Cell-ExtIEs} } OPTIONAL,
        ...
    }

GA-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-CellAdditionalShapes ::= CHOICE {
    pointWithUncertainty                        GA-PointWithUnCertainty,
    pointWithUncertaintyEllipse                 GA-PointWithUnCertaintyEllipse,
    pointWithAltitude                           GA-PointWithAltitude,
    pointWithAltitudeAndUncertaintyEllipsoid    GA-PointWithAltitudeAndUncertaintyEllipsoid,
    ellipsoidArc                                GA-EllipsoidArc,
    ...
    }
```

```
GA-AltitudeAndDirection ::= SEQUENCE {
    directionOfAltitude     ENUMERATED {height, depth},
    altitude                INTEGER (0..32767),
    ...
}

GA-EllipsoidArc ::= SEQUENCE {
    geographicalCoordinates     GeographicalCoordinate,
    innerRadius                 INTEGER (0..65535),
    uncertaintyRadius           INTEGER (0..127),
    offsetAngle                 INTEGER (0..179),
    includedAngle               INTEGER (0..179),
    confidence                  INTEGER (0..127),
    iE-Extensions               ProtocolExtensionContainer { { GA-EllipsoidArc-ExtIEs} } OPTIONAL,
    ...
}

GA-EllipsoidArc-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-AddClockModels ::= CHOICE {
    navClockModel                   GANSS-NAVclockModel,
    cnavClockModel                  GANSS-CNAVclockModel,
    glonassClockModel               GANSS-GLONASSclockModel,
    sbasClockModel                  GANSS-SBASclockModel,
    ...
}

GANSS-AddIonoModelReq ::= BIT STRING (SIZE(2))

GANSS-AddNavigationModelsReq ::= BOOLEAN

GANSS-AddOrbitModels ::= CHOICE {
    navKeplerianSet                 GANSS-NavModel-NAVKeplerianSet,
    cnavKeplerianSet                GANSS-NavModel-CNAVKeplerianSet,
    glonassECEF                     GANSS-NavModel-GLONASSecef,
    sbasECEF                        GANSS-NavModel-SBASecef,
    ...
    }

GANSS-AddUTCModelsReq ::= BOOLEAN

GANSS-Additional-Ionospheric-Model ::= SEQUENCE {
    dataID                              BIT STRING (SIZE(2)),
    alpha-beta-parameters               GPS-Ionospheric-Model,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Additional-Ionospheric-Model-ExtIEs } }  OPTIONAL,
    ...
}


GANSS-Additional-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

GANSS-Additional-Navigation-Models ::= SEQUENCE {
    ganss-Transmission-Time     GANSS-Transmission-Time,
    non-broadcastIndication     ENUMERATED { true }                                                 OPTIONAL,
    ganssSatInfoNavList         Ganss-Sat-Info-AddNavList,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-Additional-Navigation-Models-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Additional-Navigation-Models-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Additional-Time-Models ::= SEQUENCE (SIZE (1..maxGANSS-1)) OF GANSS-Time-Model

GANSS-Additional-UTC-Models ::= CHOICE {
    utcModel1           GANSS-UTCmodelSet1,
    utcModel2           GANSS-UTCmodelSet2,
    utcModel3           GANSS-UTCmodelSet3,
    ...
}

GANSS-Almanac ::= SEQUENCE{
    ganss-wk-number                 INTEGER(0..255),
    gANSS-AlmanacModel              CHOICE {
        gANSS-keplerianParameters       SEQUENCE {
            t-oa                            INTEGER(0..255),
            iod-a                           INTEGER(0..3),
            gANSS-SatelliteInformationKP    GANSS-SatelliteInformationKP,
            ie-Extensions                   ProtocolExtensionContainer { { GANSS-KeplerianParametersAlm-ExtIEs } }  OPTIONAL,
            ...
        },
        ...,
        extension-GANSS-AlmanacModel        Extension-GANSS-AlmanacModel
    },
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-Almanac-ExtIEs } }                      OPTIONAL,
    ...
}

GANSS-KeplerianParametersAlm-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Extension-GANSS-AlmanacModel    ::= ProtocolIE-Single-Container {{ Extension-GANSS-AlmanacModel-IE }}

Extension-GANSS-AlmanacModel-IE RNSAP-PROTOCOL-IES ::= {
    { ID id-GANSS-alm-keplerianNAVAlmanac           CRITICALITY     ignore      TYPE    GANSS-alm-keplerianNAVAlmanac          PRESENCE mandatory}|
```

```
    { ID id-GANSS-alm-keplerianReducedAlmanac       CRITICALITY     ignore      TYPE    GANSS-alm-keplerianReducedAlmanac      PRESENCE mandatory}|
    { ID id-GANSS-alm-keplerianMidiAlmanac          CRITICALITY     ignore      TYPE    GANSS-alm-keplerianMidiAlmanac         PRESENCE mandatory}|
    { ID id-GANSS-alm-keplerianGLONASS              CRITICALITY     ignore      TYPE    GANSS-alm-keplerianGLONASS             PRESENCE mandatory}|
    { ID id-GANSS-alm-ecefSBASAlmanac               CRITICALITY     ignore      TYPE    GANSS-alm-ecefSBASAlmanac              PRESENCE mandatory}

}


GANSS-alm-keplerianNAVAlmanac ::= SEQUENCE {
    t-oa                        INTEGER (0..255),
    sat-info-NAVkpList          GANSS-SAT-Info-Almanac-NAVkpList,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-ALM-NAVKeplerianSet-ExtIEs } }                OPTIONAL,
    ...
}


GANSS-ALM-NAVKeplerianSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


GANSS-alm-keplerianReducedAlmanac ::= SEQUENCE {
    t-oa                        INTEGER (0..255),
    sat-info-REDkpList          GANSS-SAT-Info-Almanac-REDkpList,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-ALM-ReducedKeplerianSet-ExtIEs } }            OPTIONAL,
    ...
}



GANSS-ALM-ReducedKeplerianSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


GANSS-alm-keplerianMidiAlmanac ::= SEQUENCE {
    t-oa                        INTEGER (0..255),
    sat-info-MIDIkpList         GANSS-SAT-Info-Almanac-MIDIkpList,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-ALM-MidiAlmanacSet-ExtIEs } }                 OPTIONAL,
    ...
}


GANSS-ALM-MidiAlmanacSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


GANSS-alm-keplerianGLONASS ::= SEQUENCE {
    sat-info-GLOkpList          GANSS-SAT-Info-Almanac-GLOkpList,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-ALM-GlonassAlmanacSet-ExtIEs } }              OPTIONAL,
```

```
    ...
}

GANSS-ALM-GlonassAlmanacSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-alm-ecefSBASAlmanac ::= SEQUENCE {
    sat-info-SBASecefList       GANSS-SAT-Info-Almanac-SBASecefList,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-ALM-ECEFsbasAlmanacSet-ExtIEs } }              OPTIONAL,
    ...
}

GANSS-ALM-ECEFsbasAlmanacSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Auxiliary-Information ::= CHOICE {
    ganssID1    GANSS-AuxInfoGANSS-ID1,     -- This choice may only be present if GANSS ID indicates Modernized GPS
    ganssID3    GANSS-AuxInfoGANSS-ID3,     -- This choice may only be present if GANSS ID indicates GLONASS
    ...
}

GANSS-AuxInfoGANSS-ID1 ::= SEQUENCE (SIZE(1.. maxGANSSSat)) OF SEQUENCE {
    svID                INTEGER(0..63),
    signalsAvailable    BIT STRING (SIZE(8)),
    ie-Extensions       ProtocolExtensionContainer { { GANSS-AuxInfoGANSS-ID1-element-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-AuxInfoGANSS-ID1-element-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-AuxInfoGANSS-ID3 ::= SEQUENCE (SIZE(1.. maxGANSSSat)) OF SEQUENCE {
    svID                INTEGER(0..63),
    signalsAvailable    BIT STRING (SIZE(8)),
    channelNumber       INTEGER (-7..13),
    ie-Extensions       ProtocolExtensionContainer { { GANSS-AuxInfoGANSS-ID3-element-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-AuxInfoGANSS-ID3-element-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

GANSS-AuxInfoReq ::= BOOLEAN


GANSS-Clock-Model ::= SEQUENCE (SIZE (1..maxGANSSClockMod)) OF SEQUENCE {
    t-oc                            BIT STRING (SIZE (14)),
    a-i2                            BIT STRING (SIZE (12)),
    a-i1                            BIT STRING (SIZE (18)),
    a-i0                            BIT STRING (SIZE (28)),
    t-gd                            BIT STRING (SIZE (10))                                          OPTIONAL,
    model-id                        INTEGER(0..1,...)                                               OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-ClockModelItem-ExtIEs } }  OPTIONAL,
    ...
}


GANSS-ClockModelItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-CNAVclockModel ::= SEQUENCE {
    cnavToc             BIT STRING (SIZE (11)),
    cnavTop             BIT STRING (SIZE (11)),
    cnavURA0            BIT STRING (SIZE (5)),
    cnavURA1            BIT STRING (SIZE (3)),
    cnavURA2            BIT STRING (SIZE (3)),
    cnavAf2             BIT STRING (SIZE (10)),
    cnavAf1             BIT STRING (SIZE (20)),
    cnavAf0             BIT STRING (SIZE (26)),
    cnavTgd             BIT STRING (SIZE (13)),
    cnavISCl1cp         BIT STRING (SIZE (13))                                  OPTIONAL,
    cnavISCl1cd         BIT STRING (SIZE (13))                                  OPTIONAL,
    cnavISCl1ca         BIT STRING (SIZE (13))                                  OPTIONAL,
    cnavISCl2c          BIT STRING (SIZE (13))                                  OPTIONAL,
    cnavISCl5i5         BIT STRING (SIZE (13))                                  OPTIONAL,
    cnavISCl5q5         BIT STRING (SIZE (13))                                  OPTIONAL,
    ie-Extensions       ProtocolExtensionContainer { { GANSS-CNAVclockModel-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-CNAVclockModel-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Common-Data ::= SEQUENCE {
    ganss-Ionospheric-Model             GANSS-Ionospheric-Model                                     OPTIONAL,
    ganss-Rx-Pos                        GANSS-RX-Pos                                               OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Common-Data-ExtIEs } } OPTIONAL,
    ...
}
```

```
GANSS-Common-Data-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GANSS-Additional-Ionospheric-Model      CRITICALITY ignore  EXTENSION GANSS-Additional-Ionospheric-Model  PRESENCE optional }|
    { ID id-GANSS-Earth-Orientation-Parameters      CRITICALITY ignore  EXTENSION GANSS-Earth-Orientation-Parameters  PRESENCE optional },
    ...
}

GANSS-CommonDataInfoReq ::= SEQUENCE {
    ionospheric-Model                   BOOLEAN                                                                     OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-CommonDataInfoReq-ExtIEs } }           OPTIONAL,
    ...
}


GANSS-CommonDataInfoReq-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-GANSS-AddIonoModelReq        CRITICALITY ignore  EXTENSION   GANSS-AddIonoModelReq                    PRESENCE optional} |
    {ID id-GANSS-EarthOrientParaReq     CRITICALITY ignore  EXTENSION   GANSS-EarthOrientParaReq                 PRESENCE optional} ,
    ...
}

GANSS-Data-Bit-Assistance ::= SEQUENCE {
    ganssTod                            INTEGER (0..59,...),
    dataBitAssistancelist               GANSS-DataBitAssistanceList,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ExtIEs } }         OPTIONAL,
    ...
}


GANSS-Data-Bit-Assistance-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-DataBitAssistanceList ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF GANSS-DataBitAssistanceItem

GANSS-DataBitAssistanceItem ::= SEQUENCE {
    satId                           INTEGER(0..63),
    dataBitAssistanceSgnList        GANSS-DataBitAssistanceSgnList,
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-DataBitAssistanceItem-ExtIEs } }       OPTIONAL,
    ...
}

GANSS-DataBitAssistanceItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-DataBitAssistanceSgnList ::= SEQUENCE (SIZE (1..maxSgnType)) OF GANSS-DataBitAssistanceSgnItem

GANSS-DataBitAssistanceSgnItem ::= SEQUENCE {
    ganss-SignalId          GANSS-Signal-ID,
    ganssDataBits           BIT STRING (SIZE (1..1024)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-DataBitAssistanceSgnItem-ExtIEs } }            OPTIONAL,
    ...
}
```

```
GANSS-DataBitAssistanceSgnItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Data-Bit-Assistance-ReqItem ::= SEQUENCE {
    ganssTod                                INTEGER (0..86399),
    ganss-Data-Bit-Assistance-ReqList       GANSS-Data-Bit-Assistance-ReqList,
    iE-Extensions                           ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ReqItem-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-Data-Bit-Assistance-ReqItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Data-Bit-Assistance-ReqList ::= SEQUENCE {
    dGANSS-Signal-ID                    BIT STRING (SIZE (8)),
    ganss-DataBitInterval               INTEGER(0..15),
    ganss-SatelliteInfo                 SEQUENCE (SIZE (1..maxGANSSSat)) OF INTEGER(0..63)                              OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ReqList-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-Data-Bit-Assistance-ReqList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-DeltaUT1 ::= SEQUENCE {
    b1                  BIT STRING (SIZE(11)),
    b2                  BIT STRING (SIZE(10)),
    ie-Extensions       ProtocolExtensionContainer { { GANSS-DeltaUT1-ExtIEs } }    OPTIONAL,
    ...
}

GANSS-DeltaUT1-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Earth-Orientation-Parameters ::= SEQUENCE {
    teop                BIT STRING (SIZE (16)),
    pmX                 BIT STRING (SIZE (21)),
    pmXdot              BIT STRING (SIZE (15)),
    pmY                 BIT STRING (SIZE (21)),
    pmYdot              BIT STRING (SIZE (15)),
    deltaUT1            BIT STRING (SIZE (31)),
    deltaUT1dot         BIT STRING (SIZE (19)),
    ie-Extensions       ProtocolExtensionContainer { { GANSS-Earth-Orientation-Parameters-ExtIEs } }              OPTIONAL,
    ...
}

GANSS-Earth-Orientation-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

GANSS-EarthOrientParaReq ::= BOOLEAN

GANSS-GenericDataInfoReqList ::= SEQUENCE (SIZE(1..maxNoGANSS)) OF GANSS-GenericDataInfoReqItem

GANSS-GenericDataInfoReqItem ::= SEQUENCE {
    ganss-Id                                GANSS-ID                                                        OPTIONAL,
    ganss-Navigation-Model-And-Time-Recovery    BOOLEAN                                                     OPTIONAL,
    ganss-Time-Model-GNSS-GNSS              BIT STRING (SIZE (9))                                           OPTIONAL,
    ganss-UTC-Model                         BOOLEAN                                                         OPTIONAL,
    ganss-Almanac                           BOOLEAN                                                         OPTIONAL,
    ganss-Real-Time-Integrity               BOOLEAN                                                         OPTIONAL,
    ganss-Data-Bit-Assistance-Req           GANSS-Data-Bit-Assistance-ReqItem                               OPTIONAL,
    ie-Extensions                           ProtocolExtensionContainer { { GANSS-GenericDataInfoReqItem-ExtIEs } }   OPTIONAL,
    ...
}

GANSS-GenericDataInfoReqItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-GANSS-AddNavigationModelsReq CRITICALITY ignore  EXTENSION   GANSS-AddNavigationModelsReq      PRESENCE optional} |
    {ID id-GANSS-AddUTCModelsReq        CRITICALITY ignore  EXTENSION   GANSS-AddUTCModelsReq            PRESENCE optional} |
    {ID id-GANSS-AuxInfoReq             CRITICALITY ignore  EXTENSION   GANSS-AuxInfoReq                 PRESENCE optional} |
    -- The following IE shall be present if 'GANSS-ID' in 'GANSS-GenericDataInfoReqItem' is '0' (SBAS)
    {ID id-GANSS-SBAS-ID                CRITICALITY ignore  EXTENSION   GANSS-SBAS-ID          PRESENCE           optional} ,
    ...
}


GANSS-Generic-Data ::= SEQUENCE (SIZE(1..maxNoGANSS)) OF GANSS-Generic-DataItem

GANSS-Generic-DataItem ::= SEQUENCE {
    ganss-Id                                GANSS-ID                                                        OPTIONAL,
    dganss-Correction                       DGANSSCorrections                                               OPTIONAL,
    ganss-Navigation-Model-And-Time-Recovery    GANSS-Navigation-Model-And-Time-Recovery                    OPTIONAL,
    ganss-Time-Model                        GANSS-Time-Model                                                OPTIONAL,
    ganss-UTC-TIME                          GANSS-UTC-Model                                                 OPTIONAL,
    ganss-Almanac                           GANSS-Almanac                                                   OPTIONAL,
    ganss-Real-Time-Integrity               GANSS-Real-Time-Integrity                                       OPTIONAL,
    ganss-Data-Bit-Assistance               GANSS-Data-Bit-Assistance                                       OPTIONAL,
    ie-Extensions                           ProtocolExtensionContainer { { GANSS-Generic-DataItem-ExtIEs } }    OPTIONAL,
    ...
}

GANSS-Generic-DataItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GANSS-Additional-Time-Models         CRITICALITY ignore  EXTENSION GANSS-Additional-Time-Models        PRESENCE optional }|
    { ID id-GANSS-Additional-Navigation-Models   CRITICALITY ignore  EXTENSION GANSS-Additional-Navigation-Models  PRESENCE optional }|
    { ID id-GANSS-Additional-UTC-Models          CRITICALITY ignore  EXTENSION GANSS-Additional-UTC-Models         PRESENCE optional }|
    { ID id-GANSS-Auxiliary-Information          CRITICALITY ignore  EXTENSION GANSS-Auxiliary-Information         PRESENCE optional }|
    -- The following element shall be present if 'GANSS-ID' in 'GANSS-Generic-DataItem' is '0' ('SBAS')
    { ID id-GANSS-SBAS-ID                        CRITICALITY ignore  EXTENSION GANSS-SBAS-ID                       PRESENCE optional },
    ...
```

```
}

GANSS-GLONASSclockModel ::= SEQUENCE {
    gloTau                  BIT STRING (SIZE (22)),
    gloGamma                BIT STRING (SIZE (11)),
    gloDeltaTau             BIT STRING (SIZE (5))                                       OPTIONAL,
    ie-Extensions           ProtocolExtensionContainer { { GANSS-GLONASSclockModel-ExtIEs } }   OPTIONAL,
    ...
}

GANSS-GLONASSclockModel-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-ID ::= INTEGER(0..7,...)

GANSS-Information ::= SEQUENCE {
    gANSS-CommonDataInfoReq             GANSS-CommonDataInfoReq                                     OPTIONAL,
    gANSS-GenericDataInfoReqList        GANSS-GenericDataInfoReqList                                OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Information-ExtIEs } }  OPTIONAL,
    ...
}


GANSS-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos                    BIT STRING (SIZE (12)),
    alpha-one-ionos                     BIT STRING (SIZE (12)),
    alpha-two-ionos                     BIT STRING (SIZE (12)),
    gANSS-IonosphereRegionalStormFlags  GANSS-IonosphereRegionalStormFlags                          OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Ionospheric-Model-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-IonosphereRegionalStormFlags ::= SEQUENCE {
    storm-flag-one                      BOOLEAN,
    storm-flag-two                      BOOLEAN,
    storm-flag-three                    BOOLEAN,
    storm-flag-four                     BOOLEAN,
    storm-flag-five                     BOOLEAN,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-IonosphereRegionalStormFlags-ExtIEs } } OPTIONAL,
    ...
}
```

```
GANSS-IonosphereRegionalStormFlags-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-NAVclockModel ::= SEQUENCE {
    navToc                  BIT STRING (SIZE (16)),
    navaf2                  BIT STRING (SIZE (8)),
    navaf1                  BIT STRING (SIZE (16)),
    navaf0                  BIT STRING (SIZE (22)),
    navTgd                  BIT STRING (SIZE (8)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-NAVclockModel-ExtIEs } }   OPTIONAL,
    ...
}

GANSS-NAVclockModel-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Navigation-Model-And-Time-Recovery ::= SEQUENCE {
    ganss-Transmission-Time     GANSS-Transmission-Time,
    non-broadcastIndication     ENUMERATED{true}        OPTIONAL,
    ganssSatInfoNav             GANSS-Sat-Info-Nav,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-Navigation-Model-And-Time-Recovery-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Navigation-Model-And-Time-Recovery-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-NavModel-CNAVKeplerianSet ::= SEQUENCE {
    cnavTop                 BIT STRING (SIZE (11)),
    cnavURAindex            BIT STRING (SIZE (5)),
    cnavDeltaA              BIT STRING (SIZE (26)),
    cnavAdot                BIT STRING (SIZE (25)),
    cnavDeltaNo             BIT STRING (SIZE (17)),
    cnavDeltaNoDot          BIT STRING (SIZE (23)),
    cnavMo                  BIT STRING (SIZE (33)),
    cnavE                   BIT STRING (SIZE (33)),
    cnavOmega               BIT STRING (SIZE (33)),
    cnavOMEGA0              BIT STRING (SIZE (33)),
    cnavDeltaOmegaDot       BIT STRING (SIZE (17)),
    cnavIo                  BIT STRING (SIZE (33)),
    cnavIoDot               BIT STRING (SIZE (15)),
    cnavCis                 BIT STRING (SIZE (16)),
    cnavCic                 BIT STRING (SIZE (16)),
    cnavCrs                 BIT STRING (SIZE (24)),
    cnavCrc                 BIT STRING (SIZE (24)),
    cnavCus                 BIT STRING (SIZE (21)),
    cnavCuc                 BIT STRING (SIZE (21)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-NavModel-CNAVKeplerianSet-ExtIEs } }              OPTIONAL,
```

```
    ...
}

GANSS-NavModel-CNAVKeplerianSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-NavModel-GLONASSecef ::= SEQUENCE {
    gloEn                   BIT STRING (SIZE (5)),
    gloP1                   BIT STRING (SIZE(2)),
    gloP2                   BIT STRING (SIZE (1)),
    gloM                    BIT STRING (SIZE (2))                                                   OPTIONAL,
    gloX                    BIT STRING (SIZE (27)),
    gloXdot                 BIT STRING (SIZE (24)),
    gloXdotdot              BIT STRING (SIZE (5)),
    gloY                    BIT STRING (SIZE (27)),
    gloYdot                 BIT STRING (SIZE (24)),
    gloYdotdot              BIT STRING (SIZE (5)),
    gloZ                    BIT STRING (SIZE (27)),
    gloZdot                 BIT STRING (SIZE (24)),
    gloZdotdot              BIT STRING (SIZE (5)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-NavModel-GLONASSecef-ExtIEs } }    OPTIONAL,
    ...
}

GANSS-NavModel-GLONASSecef-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


GANSS-NavModel-NAVKeplerianSet ::= SEQUENCE {
    navURA                  BIT STRING (SIZE (4)),
    navFitFlag              BIT STRING (SIZE (1)),
    navToe                  BIT STRING (SIZE (16)),
    navOmega                BIT STRING (SIZE (32)),
    navDeltaN               BIT STRING (SIZE (16)),
    navM0                   BIT STRING (SIZE (32)),
    navOmegaADot            BIT STRING (SIZE (24)),
    navE                    BIT STRING (SIZE (32)),
    navIDot                 BIT STRING (SIZE (14)),
    navAPowerHalf           BIT STRING (SIZE (32)),
    navI0                   BIT STRING (SIZE (32)),
    navOmegaA0              BIT STRING (SIZE (32)),
    navCrs                  BIT STRING (SIZE (16)),
    navCis                  BIT STRING (SIZE (16)),
    navCus                  BIT STRING (SIZE (16)),
    navCrc                  BIT STRING (SIZE (16)),
    navCic                  BIT STRING (SIZE (16)),
    navCuc                  BIT STRING (SIZE (16)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-NavModel-NAVKeplerianSet-ExtIEs } }    OPTIONAL,
    ...
}
```

```
GANSS-NavModel-NAVKeplerianSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-NavModel-SBASecef ::= SEQUENCE {
    -- the following IE shall be present if 'GANSS-SBASclockModel' in 'GANSS-AddClockModels' is not included in 'Ganss-Sat-Info-AddNavList'
    sbasTo                  BIT STRING (SIZE (13))                                          OPTIONAL,
    sbasAccuracy            BIT STRING (SIZE (4)),
    sbasXg                  BIT STRING (SIZE (30)),
    sbasYg                  BIT STRING (SIZE (30)),
    sbasZg                  BIT STRING (SIZE (25)),
    sbasXgDot               BIT STRING (SIZE (17)),
    sbasYgDot               BIT STRING (SIZE (17)),
    sbasZgDot               BIT STRING (SIZE (18)),
    sbasXgDotDot            BIT STRING (SIZE (10)),
    sbagYgDotDot            BIT STRING (SIZE (10)),
    sbasZgDotDot            BIT STRING (SIZE (10)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-NavModel-SBASecef-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-NavModel-SBASecef-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Orbit-Model ::= CHOICE {
    gANSS-keplerianParameters           SEQUENCE {
        toe-nav                             BIT STRING (SIZE (14)),
        ganss-omega-nav                     BIT STRING (SIZE (32)),
        delta-n-nav                         BIT STRING (SIZE (16)),
        m-zero-nav                          BIT STRING (SIZE (32)),
        omegadot-nav                        BIT STRING (SIZE (24)),
        ganss-e-nav                         BIT STRING (SIZE (32)),
        idot-nav                            BIT STRING (SIZE (14)),
        a-sqrt-nav                          BIT STRING (SIZE (32)),
        i-zero-nav                          BIT STRING (SIZE (32)),
        omega-zero-nav                      BIT STRING (SIZE (32)),
        c-rs-nav                            BIT STRING (SIZE (16)),
        c-is-nav                            BIT STRING (SIZE (16)),
        c-us-nav                            BIT STRING (SIZE (16)),
        c-rc-nav                            BIT STRING (SIZE (16)),
        c-ic-nav                            BIT STRING (SIZE (16)),
        c-uc-nav                            BIT STRING (SIZE (16)),
        ie-Extensions                       ProtocolExtensionContainer { { GANSS-KeplerianParametersOrb-ExtIEs } }    OPTIONAL,
        ...
    },
    ...
}
```

```
GANSS-KeplerianParametersOrb-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Real-Time-Integrity ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF SEQUENCE {
    bad-ganss-satId                     INTEGER(0..63),
    bad-ganss-signalId                  BIT STRING(SIZE(8))                                                     OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-RealTimeInformationItem-ExtIEs } }     OPTIONAL,
    ...
}

GANSS-RealTimeInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-RX-Pos ::= SEQUENCE {
    latitudeSign            ENUMERATED{north,south},
    degreesOfLatitude       INTEGER(0..2147483647),
    degreesOfLongitude      INTEGER(-2147483648..2147483647),
    directionOfAltitude     ENUMERATED{height,depth},
    altitude                INTEGER(0..32767),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-RX-Pos-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-RX-Pos-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SatelliteInformationKP ::= SEQUENCE (SIZE (1..maxGANSSSatAlmanac)) OF SEQUENCE {
    satId                           INTEGER(0..63),
    ganss-e-alm                     BIT STRING (SIZE (11)),
    ganss-delta-I-alm               BIT STRING (SIZE (11)),
    ganss-omegadot-alm              BIT STRING (SIZE (11)),
    ganss-svhealth-alm              BIT STRING (SIZE (4)),
    ganss-delta-a-sqrt-alm          BIT STRING (SIZE (17)),
    ganss-omegazero-alm             BIT STRING (SIZE (16)),
    ganss-m-zero-alm                BIT STRING (SIZE (16)),
    ganss-omega-alm                 BIT STRING (SIZE (16)),
    ganss-af-zero-alm               BIT STRING (SIZE (14)),
    ganss-af-one-alm                BIT STRING (SIZE (11)),
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-SatelliteInformationKPItem-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-SatelliteInformationKPItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

Ganss-Sat-Info-AddNavList ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF SEQUENCE {
    satId                       INTEGER (0..63),
    svHealth                    BIT STRING (SIZE (6)),
    iod                         BIT STRING (SIZE (11)),
    ganssAddClockModels         GANSS-AddClockModels,
    ganssAddOrbitModels         GANSS-AddOrbitModels,
    ie-Extensions               ProtocolExtensionContainer { { Ganss-Sat-Info-AddNavList-ExtIEs } } OPTIONAL,
    ...
}

Ganss-Sat-Info-AddNavList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SAT-Info-Almanac-GLOkpList ::= SEQUENCE (SIZE (1.. maxGANSSSatAlmanac)) OF SEQUENCE {
    gloAlmNA                BIT STRING (SIZE(11)),
    gloAlmnA                BIT STRING (SIZE(5)),
    gloAlmHA                BIT STRING (SIZE(5)),
    gloAlmLambdaA           BIT STRING (SIZE(21)),
    gloAlmTlambdaA          BIT STRING (SIZE(21)),
    gloAlmDeltaIA           BIT STRING (SIZE(18)),
    gloAkmDeltaTA           BIT STRING (SIZE(22)),
    gloAlmDeltaTdotA        BIT STRING (SIZE(7)),
    gloAlmEpsilonA          BIT STRING (SIZE(15)),
    gloAlmOmegaA            BIT STRING (SIZE(16)),
    gloAlmTauA              BIT STRING (SIZE(10)),
    gloAlmCA                BIT STRING (SIZE(1)),
    gloAlmMA                BIT STRING (SIZE(2))                                                    OPTIONAL,
    ie-Extensions           ProtocolExtensionContainer { { GANSS-SAT-Info-Almanac-GLOkp-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-SAT-Info-Almanac-GLOkp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SAT-Info-Almanac-MIDIkpList ::= SEQUENCE (SIZE (1.. maxGANSSSatAlmanac)) OF SEQUENCE {
    svID                    INTEGER(0..63),
    midiAlmE                BIT STRING (SIZE (11)),
    midiAlmDeltaI           BIT STRING (SIZE (11)),
    midiAlmOmegaDot         BIT STRING (SIZE (11)),
    midiAlmSqrtA            BIT STRING (SIZE (17)),
    midiAlmOmega0           BIT STRING (SIZE (16)),
    midiAlmOmega            BIT STRING (SIZE (16)),
    midiAlmMo               BIT STRING (SIZE (16)),
    midiAlmaf0              BIT STRING (SIZE (11)),
    midiAlmaf1              BIT STRING (SIZE (10)),
    midiAlmL1Health         BIT STRING (SIZE (1)),
```

```
    midiAlmL2Health         BIT STRING (SIZE (1)),
    midiAlmL5Health         BIT STRING (SIZE (1)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-SAT-Info-Almanac-MIDIkp-ExtIEs } }                OPTIONAL,
    ...
}

GANSS-SAT-Info-Almanac-MIDIkp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SAT-Info-Almanac-NAVkpList ::= SEQUENCE (SIZE (1.. maxGANSSSatAlmanac)) OF SEQUENCE {
    svID                    INTEGER(0..63),
    navAlmE                 BIT STRING (SIZE (16)),
    navAlmDeltaI            BIT STRING (SIZE (16)),
    navAlmOMEGADOT          BIT STRING (SIZE (16)),
    navAlmSVHealth          BIT STRING (SIZE (8)),
    navAlmSqrtA             BIT STRING (SIZE (24)),
    navAlmOMEGAo            BIT STRING (SIZE (24)),
    navAlmOmega             BIT STRING (SIZE (24)),
    navAlmMo                BIT STRING (SIZE (24)),
    navAlmaf0               BIT STRING (SIZE (11)),
    navAlmaf1               BIT STRING (SIZE (11)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-SAT-Info-Almanac-NAVkp-ExtIEs } }                 OPTIONAL,
    ...
}

GANSS-SAT-Info-Almanac-NAVkp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SAT-Info-Almanac-REDkpList ::= SEQUENCE (SIZE (1.. maxGANSSSatAlmanac)) OF SEQUENCE {
    svID                    INTEGER(0..63),
    redAlmDeltaA            BIT STRING (SIZE (8)),
    redAlmOmega0            BIT STRING (SIZE (7)),
    redAlmPhi0              BIT STRING (SIZE (7)),
    redAlmL1Health          BIT STRING (SIZE (1)),
    redAlmL2Health          BIT STRING (SIZE (1)),
    redAlmL5Health          BIT STRING (SIZE (1)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-SAT-Info-Almanac-REDkp-ExtIEs } }                 OPTIONAL,
    ...
}

GANSS-SAT-Info-Almanac-REDkp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SAT-Info-Almanac-SBASecefList ::= SEQUENCE (SIZE (1.. maxGANSSSatAlmanac)) OF SEQUENCE {
    sbasAlmDataID           BIT STRING (SIZE(2)),
    svID                    INTEGER(0..63),
```

```
    sbasAlmHealth           BIT STRING (SIZE(8)),
    sbasAlmXg               BIT STRING (SIZE(15)),
    sbasAlmYg               BIT STRING (SIZE(15)),
    sbasAlmZg               BIT STRING (SIZE(9)),
    sbasAlmXgdot            BIT STRING (SIZE(3)),
    sbasAlmYgDot            BIT STRING (SIZE(3)),
    sbasAlmZgDot            BIT STRING (SIZE(4)),
    sbasAlmTo               BIT STRING (SIZE(11)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-SAT-Info-Almanac-SBASecef-ExtIEs } }              OPTIONAL,
    ...
}

GANSS-SAT-Info-Almanac-SBASecef-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


GANSS-Sat-Info-Nav ::= SEQUENCE (SIZE(1..maxGANSSSat)) OF SEQUENCE {
    satId                       INTEGER(0..63),
    svHealth                    BIT STRING (SIZE(5)),
    iod                         BIT STRING (SIZE(10)),
    ganssClockModel             GANSS-Clock-Model,
    ganssOrbitModel             GANSS-Orbit-Model,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-Sat-Info-Nav-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Sat-Info-Nav-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SBAS-ID ::= ENUMERATED    {
                                waas,
                                egnos,
                                msas,
                                gagan,
                                ...
                                }

GANSS-SBASclockModel ::= SEQUENCE {
    sbasTo                  BIT STRING (SIZE (13)),
    sbasAgfo                BIT STRING (SIZE (12)),
    sbasAgf1                BIT STRING (SIZE (8)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-SBASclockModel-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-SBASclockModel-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

GANSS-Signal-ID ::= INTEGER(0..7,...)

GANSS-StatusHealth ::= ENUMERATED {
   udre-scale-1dot0,
   udre-scale-0dot75,
   udre-scale-0dot5,
   udre-scale-0dot3,
   udre-scale-0dot2,
   udre-scale-0dot1,
   no-data,
   invalid-data
}

GANSS-Time-ID   ::= INTEGER(0..7,...)


GANSS-Time-Model ::= SEQUENCE {
    ganss-time-model-Ref-Time           INTEGER(0..37799),
    ganss-t-a0                          INTEGER(-2147483648..2147483647),
    ganss-t-a1                          INTEGER(-8388608..8388607)                                  OPTIONAL,
    ganss-t-a2                          INTEGER(-64..63)                                            OPTIONAL,
    gnss-to-id                          ENUMERATED{gps,...,galileo,qzss,glonass},
    ganss-wk-number                     INTEGER(0..8191)                                            OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Time-Model-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-Time-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Transmission-Time ::= SEQUENCE {
    ganssDay                    INTEGER(0..8191)                                            OPTIONAL,
    ganssTod                    INTEGER(0..86399),
    ie-Extensions               ProtocolExtensionContainer { { GANSS-Transmission-Time-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-Transmission-Time-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-UTC-Model ::= SEQUENCE {
    a-one-utc                       BIT STRING (SIZE (24)),
    a-zero-utc                      BIT STRING (SIZE (32)),
    t-ot-utc                        BIT STRING (SIZE (8)),
    w-n-t-utc                       BIT STRING (SIZE (8)),
    delta-t-ls-utc                  BIT STRING (SIZE (8)),
    w-n-lsf-utc                     BIT STRING (SIZE (8)),
```

```
    dn-utc                          BIT STRING (SIZE (8)),
    delta-t-lsf-utc                 BIT STRING (SIZE (8)),
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-UTC-Model-ExtIEs } }          OPTIONAL,
    ...
}

GANSS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-UTCmodelSet1 ::= SEQUENCE {
    utcA0               BIT STRING (SIZE(16)),
    utcA1               BIT STRING (SIZE(13)),
    utcA2               BIT STRING (SIZE(7)),
    utcDeltaTls         BIT STRING (SIZE(8)),
    utcTot              BIT STRING (SIZE(16)),
    utcWNot             BIT STRING (SIZE(13)),
    utcWNlsf            BIT STRING (SIZE(8)),
    utcDN               BIT STRING (SIZE(4)),
    utcDeltaTlsf        BIT STRING (SIZE(8)),
    ie-Extensions       ProtocolExtensionContainer { { GANSS-UTCmodelSet1-ExtIEs } }    OPTIONAL,
    ...
}

GANSS-UTCmodelSet1-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-UTCmodelSet2 ::= SEQUENCE {
    nA                  BIT STRING (SIZE(11)),
    tauC                BIT STRING (SIZE(32)),
    deltaUT1            GANSS-DeltaUT1                                          OPTIONAL,
    kp                  BIT STRING (SIZE(2))                                    OPTIONAL,
    ie-Extensions       ProtocolExtensionContainer { { GANSS-UTCmodelSet2-ExtIEs } }    OPTIONAL,
    ...
}

GANSS-UTCmodelSet2-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-UTCmodelSet3 ::= SEQUENCE {
    utcA1wnt            BIT STRING (SIZE(24)),
    utcA0wnt            BIT STRING (SIZE(32)),
    utcTot              BIT STRING (SIZE(8)),
    utcWNt              BIT STRING (SIZE(8)),
    utcDeltaTls         BIT STRING (SIZE(8)),
    utcWNlsf            BIT STRING (SIZE(8)),
    utcDN               BIT STRING (SIZE(8)),
    utcDeltaTlsf        BIT STRING (SIZE(8)),
    utcStandardID       BIT STRING (SIZE(3)),
```

```
    ie-Extensions       ProtocolExtensionContainer { { GANSS-UTCmodelSet3-ExtIEs } }    OPTIONAL,
    ...
}

GANSS-UTCmodelSet3-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-PointWithAltitude ::= SEQUENCE {
    geographicalCoordinates     GeographicalCoordinate,
    altitudeAndDirection        GA-AltitudeAndDirection,
    iE-Extensions               ProtocolExtensionContainer { { GA-PointWithAltitude-ExtIEs} } OPTIONAL,
    ...
}

GA-PointWithAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-PointWithAltitudeAndUncertaintyEllipsoid ::= SEQUENCE {
    geographicalCoordinates     GeographicalCoordinate,
    altitudeAndDirection        GA-AltitudeAndDirection,
    uncertaintyEllipse          GA-UncertaintyEllipse,
    uncertaintyAltitude         INTEGER (0..127),
    confidence                  INTEGER (0..127),
    iE-Extensions               ProtocolExtensionContainer { { GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs} } OPTIONAL,
    ...
}

GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-PointWithUnCertaintyEllipse ::= SEQUENCE {
    geographicalCoordinates     GeographicalCoordinate,
    uncertaintyEllipse          GA-UncertaintyEllipse,
    confidence                  INTEGER (0..127),
    iE-Extensions               ProtocolExtensionContainer { { GA-PointWithUnCertaintyEllipse-ExtIEs} } OPTIONAL,
    ...
}

GA-PointWithUnCertaintyEllipse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-UncertaintyEllipse ::= SEQUENCE {
    uncertaintySemi-major       INTEGER (0..127),
    uncertaintySemi-minor       INTEGER (0..127),
    orientationOfMajorAxis      INTEGER (0..179),   -- The values 90..179 shall not be used.
    ...
}

GA-PointWithUnCertainty ::=SEQUENCE {
```

```
    geographicalCoordinates     GeographicalCoordinate,
    uncertaintyCode         INTEGER (0..127),
    iE-Extensions           ProtocolExtensionContainer { {GA-PointWithUnCertainty-ExtIEs} } OPTIONAL,
    ...
}

GA-PointWithUnCertainty-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-AccessPointPosition ::= SEQUENCE {
    geographicalCoordinate      GeographicalCoordinate,
    iE-Extensions           ProtocolExtensionContainer { {GA-AccessPoint-ExtIEs} } OPTIONAL,
    ...
}

GA-AccessPoint-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GeographicalCoordinate ::= SEQUENCE {
    latitudeSign            ENUMERATED { north, south },
    latitude            INTEGER (0..8388607),
    longitude           INTEGER (-8388608..8388607),
    iE-Extensions           ProtocolExtensionContainer { {GeographicalCoordinate-ExtIEs} } OPTIONAL,
    ...
}

GeographicalCoordinate-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GERAN-Cell-Capability ::=   BIT STRING (SIZE (16))
-- First bit:  A/Gb mode --
-- Second bit: Iu mode   --
-- Note: undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. -

GERAN-Classmark ::=         OCTET STRING
    -- GERAN Classmark as defined in (38) --

GERAN-SI-Type ::= CHOICE {
    sI                          GERAN-SystemInfo,
    pSI                         GERAN-SystemInfo,
    ...
}

GERAN-SystemInfo ::= SEQUENCE (SIZE (1..maxNrOfGERANSI)) OF
        SEQUENCE {
            gERAN-SI-block      OCTET STRING (SIZE (1..23)),
            iE-Extensions       ProtocolExtensionContainer { { GERAN-SystemInfo-ExtIEs } }      OPTIONAL,
            ...
}

GERAN-SystemInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

GenericTrafficCategory  ::= BIT STRING (SIZE (8))

GPS-Almanac ::= SEQUENCE {
    wna-alm                 BIT STRING (SIZE (8)),
    satellite-Almanac-Information       SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
            dATA-ID             DATA-ID,
            sAT-ID              SAT-ID,
            gps-e-alm           BIT STRING (SIZE (16)),
            gps-toa-alm         BIT STRING (SIZE (8)),
            gps-delta-I-alm     BIT STRING (SIZE (16)),
            omegadot-alm        BIT STRING (SIZE (16)),
            svhealth-alm        BIT STRING (SIZE (8)),
            gps-a-sqrt-alm      BIT STRING (SIZE (24)),
            omegazero-alm       BIT STRING (SIZE (24)),
            m-zero-alm          BIT STRING (SIZE (24)),
            gps-omega-alm       BIT STRING (SIZE (24)),
            gps-af-zero-alm     BIT STRING (SIZE (11)),
            gps-af-one-alm      BIT STRING (SIZE (11)),
            iE-Extensions       ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtIEs} }     OPTIONAL,
            ...
        },
    -- This GPS-Almanac-Information is for the 1st 16 satellites
    sVGlobalHealth-alm      BIT STRING (SIZE (364))     OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { GPS-Almanac-ExtIEs} }        OPTIONAL,
    ...
}

Satellite-Almanac-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {   ID id-Satellite-Almanac-Information-ExtItem CRITICALITY ignore      EXTENSION   Satellite-Almanac-Information-ExtItem        PRESENCE
    optional},
    ...
}

Satellite-Almanac-Information-ExtItem ::= SEQUENCE (SIZE (1..maxNrOfSatAlmanac-maxNoSat)) OF
        SEQUENCE {
            dATA-ID             DATA-ID,
            sAT-ID              SAT-ID,
            gps-e-alm           BIT STRING (SIZE (16)),
            gps-toa-alm         BIT STRING (SIZE (8)),
            gps-delta-I-alm     BIT STRING (SIZE (16)),
            omegadot-alm        BIT STRING (SIZE (16)),
            svhealth-alm        BIT STRING (SIZE (8)),
            gps-a-sqrt-alm      BIT STRING (SIZE (24)),
            omegazero-alm       BIT STRING (SIZE (24)),
            m-zero-alm          BIT STRING (SIZE (24)),
            gps-omega-alm       BIT STRING (SIZE (24)),
```

```
            gps-af-zero-alm     BIT STRING (SIZE (11)),
            gps-af-one-alm      BIT STRING (SIZE (11)),
            iE-Extensions       ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtItemIEs} }    OPTIONAL,
            ...
        }
--  Includes the GPS-Almanac-Information for the 17th through 32nd satellites.

Satellite-Almanac-Information-ExtItemIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPSInformation ::= SEQUENCE (SIZE (1..maxNoGPSTypes)) OF
    SEQUENCE {
        gPSInformationItem      ENUMERATED {
            gPS-NavigationModel-and-TimeRecovery,
            gPS-Ionospheric-Model,
            gPS-UTC-Model,
            gPS-Almanac,
            gPS-RealTime-Integrity,
            ...
        },
        iE-Extensions           ProtocolExtensionContainer { { GPSInformation-ExtIEs} }     OPTIONAL,
        ...
    }
-- This IE shall be present if the Information Type IE indicates 'GPS Information'

GPSInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos        BIT STRING (SIZE (8)),
    alpha-one-ionos         BIT STRING (SIZE (8)),
    alpha-two-ionos         BIT STRING (SIZE (8)),
    alpha-three-ionos       BIT STRING (SIZE (8)),
    beta-zero-ionos         BIT STRING (SIZE (8)),
    beta-one-ionos          BIT STRING (SIZE (8)),
    beta-two-ionos          BIT STRING (SIZE (8)),
    beta-three-ionos        BIT STRING (SIZE (8)),
    iE-Extensions           ProtocolExtensionContainer { { GPS-Ionospheric-Model-ExtIEs} }      OPTIONAL,
    ...
}

GPS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF
    SEQUENCE {
        tx-tow-nav                      INTEGER (0..1048575),
        sAT-ID                          SAT-ID,
        tlm-message-nav                 BIT STRING (SIZE (14)),
        tlm-revd-c-nav                  BIT STRING (SIZE (2)),
        ho-word-nav                     BIT STRING (SIZE (22)),
```

```
        w-n-nav                         BIT STRING (SIZE (10)),
        ca-or-p-on-l2-nav               BIT STRING (SIZE (2)),
        user-range-accuracy-index-nav   BIT STRING (SIZE (4)),
        sv-health-nav                   BIT STRING (SIZE (6)),
        iodc-nav                        BIT STRING (SIZE (10)),
        l2-p-dataflag-nav               BIT STRING (SIZE (1)),
        sf1-reserved-nav                BIT STRING (SIZE (87)),
        t-gd-nav                        BIT STRING (SIZE (8)),
        t-oc-nav                        BIT STRING (SIZE (16)),
        a-f-2-nav                       BIT STRING (SIZE (8)),
        a-f-1-nav                       BIT STRING (SIZE (16)),
        a-f-zero-nav                    BIT STRING (SIZE (22)),
        c-rs-nav                        BIT STRING (SIZE (16)),
        delta-n-nav                     BIT STRING (SIZE (16)),
        m-zero-nav                      BIT STRING (SIZE (32)),
        c-uc-nav                        BIT STRING (SIZE (16)),
        gps-e-nav                       BIT STRING (SIZE (32)),
        c-us-nav                        BIT STRING (SIZE (16)),
        a-sqrt-nav                      BIT STRING (SIZE (32)),
        t-oe-nav                        BIT STRING (SIZE (16)),
        fit-interval-flag-nav           BIT STRING (SIZE (1)),
        aodo-nav                        BIT STRING (SIZE (5)),
        c-ic-nav                        BIT STRING (SIZE (16)),
        omega-zero-nav                  BIT STRING (SIZE (32)),
        c-is-nav                        BIT STRING (SIZE (16)),
        i-zero-nav                      BIT STRING (SIZE (32)),
        c-rc-nav                        BIT STRING (SIZE (16)),
        gps-omega-nav                   BIT STRING (SIZE (32)),
        omegadot-nav                    BIT STRING (SIZE (24)),
        idot-nav                        BIT STRING (SIZE (14)),
        spare-zero-fill                 BIT STRING (SIZE (20)),
        iE-Extensions                   ProtocolExtensionContainer { { GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs} }   OPTIONAL,
        ...
    }

GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-RealTime-Integrity ::= CHOICE {
    badSatellites               BadSatellites,
    noBadSatellite              NULL
}

GPS-RX-POS ::= SEQUENCE {
    geographicalCoordinate      GeographicalCoordinate,
    altitudeAndDirection        GA-AltitudeAndDirection,
    iE-Extensions               ProtocolExtensionContainer { { GPS-RX-POS-ExtIEs} } OPTIONAL,
    ...
}

GPS-RX-POS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
GPS-Status-Health ::= ENUMERATED {
   udre-1-0,
   udre-0-75,
   udre-0-5,
   udre-0-3,
   udre-0-1,
   no-data,
   invalid-data
}

GPSTOW ::= INTEGER (0..604799)

GPS-UTC-Model ::= SEQUENCE {
    a-one-utc               BIT STRING (SIZE (24)),
    a-zero-utc              BIT STRING (SIZE (32)),
    t-ot-utc                BIT STRING (SIZE (8)),
    delta-t-ls-utc          BIT STRING (SIZE (8)),
    w-n-t-utc               BIT STRING (SIZE (8)),
    w-n-lsf-utc             BIT STRING (SIZE (8)),
    dn-utc                  BIT STRING (SIZE (8)),
    delta-t-lsf-utc         BIT STRING (SIZE (8)),
    iE-Extensions           ProtocolExtensionContainer { { GPS-UTC-Model-ExtIEs} }      OPTIONAL,
    ...
}

GPS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Guaranteed-Rate-Information ::= SEQUENCE {
    guaranteed-UL-Rate          Guaranteed-Rate OPTIONAL,
    guaranteed-DL-Rate          Guaranteed-Rate OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {Guaranteed-Rate-Information-ExtIEs} } OPTIONAL,
    ...
}

Guaranteed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Guaranteed-Rate         ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...

-- H

HARQ-Info-for-E-DCH ::= ENUMERATED {
    rv0,
    rvtable
}

HARQ-MemoryPartitioning ::= CHOICE {
    implicit        HARQ-MemoryPartitioning-Implicit,
    explicit        HARQ-MemoryPartitioning-Explicit,
```

```
    ...
    }

HARQ-MemoryPartitioning-Implicit    ::= SEQUENCE {
    number-of-Processes         INTEGER (1..8,...,12|14|16),
    iE-Extensions               ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Implicit-ExtIEs } }      OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Implicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-MemoryPartitioning-Explicit    ::= SEQUENCE {
    hARQ-MemoryPartitioningList         HARQ-MemoryPartitioningList,
    iE-Extensions                       ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Explicit-ExtIEs } }       OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HARQ-MemoryPartitioningInfoExtForMIMO    CRITICALITY ignore  EXTENSION HARQ-MemoryPartitioningInfoExtForMIMO  PRESENCE optional},
    ...
}

HARQ-MemoryPartitioningList ::= SEQUENCE (SIZE (1..maxNrOfHARQProc)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningInfoExtForMIMO ::= SEQUENCE (SIZE (4|6|8)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningItem ::= SEQUENCE {
    process-Memory-Size                 ENUMERATED {
                                        hms800, hms1600, hms2400, hms3200, hms4000,
                                        hms4800, hms5600, hms6400, hms7200, hms8000,
                                        hms8800, hms9600, hms10400, hms11200, hms12000,
                                        hms12800, hms13600, hms14400, hms15200, hms16000,
                                        hms17600, hms19200, hms20800, hms22400, hms24000,
                                        hms25600, hms27200, hms28800, hms30400, hms32000,
                                        hms36000, hms40000, hms44000, hms48000, hms52000,
                                        hms56000, hms60000, hms64000, hms68000, hms72000,
                                        hms76000, hms80000, hms88000, hms96000, hms104000,
                                        hms112000, hms120000, hms128000, hms136000, hms144000,
                                        hms152000, hms160000, hms176000, hms192000, hms208000,
                                        hms224000, hms240000, hms256000, hms272000, hms288000,
                                        hms304000,...},
    iE-Extensions                       ProtocolExtensionContainer { { HARQ-MemoryPartitioningItem-ExtIEs } }      OPTIONAL,
    ...
}

HARQ-MemoryPartitioningItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-Preamble-Mode ::= ENUMERATED {
   mode0,
   mode1
```

```
}

HARQ-Process-Allocation-2ms-EDCH ::= BIT STRING ( SIZE(maxNrOfEDCHHARQProcesses2msEDCH) )

HARQ-Preamble-Mode-Activation-Indicator ::=ENUMERATED   {
    harqPreambleModeSupported
}

HCS-Prio    ::= INTEGER (0..7)
-- 0 = lowest priority, ...7 = highest priority

HSDSCH-Configured-Indicator ::= ENUMERATED {
    configured-HS-DSCH,
    no-configured-HS-DSCH
}

HSDSCH-FDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information               HSDSCH-MACdFlows-Information,
    uE-Capabilities-Info                       UE-Capabilities-Info,
    mAChs-Reordering-Buffer-Size-for-RLC-UM    MAChsReorderingBufferSize-for-RLC-UM,
    cqiFeedback-CycleK                         CQI-Feedback-Cycle,
    cqiRepetitionFactor                        CQI-RepetitionFactor                        OPTIONAL,
    -- This IE shall be present if the CQI Feedback Cycle k IE is set to a value greater than 0.
    ackNackRepetitionFactor                    AckNack-RepetitionFactor,
    cqiPowerOffset                             CQI-Power-Offset,
    ackPowerOffset                             Ack-Power-Offset,
    nackPowerOffset                            Nack-Power-Offset,
    hsscch-PowerOffset                         HSSCCH-PowerOffset                          OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs } }      OPTIONAL,
    ...
}

HSDSCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HARQ-Preamble-Mode                         CRITICALITY ignore  EXTENSION   HARQ-Preamble-Mode                         PRESENCE optional}|
{ ID id-MIMO-ActivationIndicator                   CRITICALITY reject  EXTENSION   MIMO-ActivationIndicator                  PRESENCE optional}|
{ ID id-HSDSCH-MACdPDUSizeFormat                   CRITICALITY reject  EXTENSION   HSDSCH-MACdPDUSizeFormat                  PRESENCE optional}|
{ ID id-SixtyfourQAM-UsageAllowedIndicator         CRITICALITY ignore  EXTENSION   SixtyfourQAM-UsageAllowedIndicator        PRESENCE optional}|
{ ID id-UE-with-enhanced-HS-SCCH-support-indicator     CRITICALITY ignore  EXTENSION   NULL                                   PRESENCE optional}|
{ ID id-EnhancedHSServingCC-Abort                  CRITICALITY reject  EXTENSION   EnhancedHSServingCC-Abort                 PRESENCE optional}|
{ ID id-UE-SupportIndicatorExtension               CRITICALITY ignore  EXTENSION   UE-SupportIndicatorExtension              PRESENCE optional}|
{ ID id-power-offset-for-S-CPICH-for-MIMO-Request-Indicator     CRITICALITY ignore  EXTENSION PowerOffsetForSecondaryCPICHforMIMORequestIndicator
            PRESENCE optional}|
{ ID id-Single-Stream-MIMO-ActivationIndicator     CRITICALITY reject  EXTENSION   Single-Stream-MIMO-ActivationIndicator    PRESENCE optional},
    ...
}

HSDSCH-FDD-Information-Response ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-Response     HSDSCH-MACdFlow-Specific-InfoList-Response                                  OPTIONAL,
    hSSCCH-Specific-InfoList-Response              HSSCCH-FDD-Specific-InfoList-Response                                       OPTIONAL,
    hSPDSCH-and-HSSCCH-ScramblingCode              DL-ScramblingCode                                          OPTIONAL,
    measurement-Power-Offset                       Measurement-Power-Offset                                                    OPTIONAL,
    hARQ-MemoryPartitioning                        HARQ-MemoryPartitioning                                                     OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }   OPTIONAL,
    ...
```

```
}

HSDSCH-FDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-User-Plane-Congestion-Fields-Inclusion      CRITICALITY ignore  EXTENSION User-Plane-Congestion-Fields-Inclusion    PRESENCE optional}|
{ ID id-HARQ-Preamble-Mode-Activation-Indicator     CRITICALITY ignore  EXTENSION HARQ-Preamble-Mode-Activation-Indicator   PRESENCE optional}|
{ ID id-MIMO-InformationResponse                    CRITICALITY ignore  EXTENSION MIMO-InformationResponse                  PRESENCE optional}|
{ ID id-SixtyfourQAM-DL-UsageIndicator              CRITICALITY ignore  EXTENSION SixtyfourQAM-DL-UsageIndicator            PRESENCE optional}|
{ ID id-HSDSCH-TBSizeTableIndicator                 CRITICALITY ignore  EXTENSION HSDSCH-TBSizeTableIndicator               PRESENCE optional}|
{ ID id-power-offset-for-S-CPICH-for-MIMO           CRITICALITY ignore  EXTENSION PowerOffsetForSecondaryCPICHforMIMO       PRESENCE optional},
    ...
}

HS-DSCH-FDD-Secondary-Serving-Information ::= SEQUENCE {
    hsscch-PowerOffset                              HSSCCH-PowerOffset                                      OPTIONAL,
    sixtyfourQAM-UsageAllowedIndicator              SixtyfourQAM-UsageAllowedIndicator                      OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HS-DSCH-FDD-Secondary-Serving-Information-ExtIEs } }
    OPTIONAL,
    ...
}

HS-DSCH-FDD-Secondary-Serving-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ID id-MIMO-ActivationIndicator         CRITICALITY reject      EXTENSION MIMO-ActivationIndicator   PRESENCE optional}|
{ID id-Single-Stream-MIMO-ActivationIndicator       CRITICALITY reject  EXTENSION Single-Stream-MIMO-ActivationIndicator       PRESENCE optional}|
{ID id-DiversityMode            CRITICALITY reject      EXTENSION DiversityMode PRESENCE optional}|
{ID id-TransmitDiversityIndicator   CRITICALITY reject      EXTENSION TransmitDiversityIndicator  PRESENCE optional},
    ...
}

HS-DSCH-FDD-Secondary-Serving-Information-Response ::= SEQUENCE {
    hSSCCH-Specific-InfoList-Response       HSSCCH-FDD-Specific-InfoList-Response                   OPTIONAL,
    hSPDSCH-and-HSSCCH-ScramblingCode       DL-ScramblingCode                                       OPTIONAL,
    measurement-Power-Offset                Measurement-Power-Offset                                OPTIONAL,
    sixtyfourQAM-DL-UsageIndicator          SixtyfourQAM-DL-UsageIndicator                          OPTIONAL,
    hSDSCH-TBSizeTableIndicator             HSDSCH-TBSizeTableIndicator                             OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-DSCH-FDD-Secondary-Serving-Information-Respons-ExtIEs } }
    OPTIONAL,
    ...
}

HS-DSCH-FDD-Secondary-Serving-Information-Respons-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ID id-MIMO-InformationResponse         CRITICALITY ignore      EXTENSION MIMO-InformationResponse   PRESENCE optional},
    ...
}

HS-DSCH-Secondary-Serving-Information-To-Modify ::= SEQUENCE {
    hsscch-PowerOffset                      HSSCCH-PowerOffset                              OPTIONAL,
    hSSCCH-CodeChangeGrant                  HSSCCH-Code-Change-Grant                        OPTIONAL,
    sixtyfourQAM-UsageAllowedIndicator      SixtyfourQAM-UsageAllowedIndicator              OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-DSCH-Secondary-Serving-Information-To-Modify-ExtIEs } }
    OPTIONAL,
    ...
}

HS-DSCH-Secondary-Serving-Information-To-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
{ID id-MIMO-Mode-Indicator          CRITICALITY reject      EXTENSION MIMO-Mode-Indicator       PRESENCE optional}|
{ID id-Single-Stream-MIMO-Mode-Indicator    CRITICALITY reject      EXTENSION   Single-Stream-MIMO-Mode-Indicator   PRESENCE optional}|
{ID id-DiversityMode                CRITICALITY reject      EXTENSION DiversityMode PRESENCE optional}|
{ID id-TransmitDiversityIndicator           CRITICALITY reject      EXTENSION TransmitDiversityIndicator   PRESENCE optional}|
-- This IE shall be present if Diversity Mode IE is present and is not set to "none"
{ID id-NonCellSpecificTxDiversity           CRITICALITY reject      EXTENSION NonCellSpecificTxDiversity   PRESENCE optional},
    ...
}

HS-DSCH-FDD-Secondary-Serving-Information-To-Modify-Unsynchronised ::= SEQUENCE {
    hsscch-PowerOffset                          HSSCCH-PowerOffset                              OPTIONAL,
    sixtyfourQAM-UsageAllowedIndicator          SixtyfourQAM-UsageAllowedIndicator              OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { HS-DSCH-FDD-Secondary-Serving-Information-To-Modify-Unsynchronised-ExtIEs } }
    OPTIONAL,
    ...
}

HS-DSCH-FDD-Secondary-Serving-Information-To-Modify-Unsynchronised-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ID id-MIMO-Mode-Indicator          CRITICALITY reject      EXTENSION MIMO-Mode-Indicator       PRESENCE optional}|
{ID id-Single-Stream-MIMO-Mode-Indicator    CRITICALITY reject      EXTENSION   Single-Stream-MIMO-Mode-Indicator   PRESENCE optional},
    ...
}

HS-DSCH-FDD-Secondary-Serving-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                   HSSCCH-CodeChangeIndicator                  OPTIONAL,
    hS-PDSCH-Code-Change-Indicator              HS-PDSCH-Code-Change-Indicator              OPTIONAL,
    -- This IE shall never be included. If received it shall be ignored.
    iE-Extensions                               ProtocolExtensionContainer { { HS-DSCH-FDD-Secondary-Serving-Update-Information-ExtIEs } }
    OPTIONAL,
    ...
}

HS-DSCH-FDD-Secondary-Serving-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-Secondary-Serving-Cell-Change-Information-Response ::= SEQUENCE {
    hS-DSCH-Secondary-Serving-cell-choice       HS-DSCH-Secondary-Serving-cell-change-choice,
    iE-Extensions                               ProtocolExtensionContainer { { HS-DSCH-Secondary-Serving-Cell-Change-Information-Response-ExtIEs }
}       OPTIONAL,
    ...
}

HS-DSCH-Secondary-Serving-Cell-Change-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-Secondary-Serving-cell-change-choice ::= CHOICE {
    hS-Secondary-Serving-cell-change-successful         HS-Secondary-Serving-cell-change-successful,
    hS-Secondary-Serving-cell-change-unsuccessful       HS-Secondary-Serving-cell-change-unsuccessful,
    ...
}

HS-Secondary-Serving-cell-change-successful ::= SEQUENCE {
```

```
    hS-DSCH-FDD-Secondary-Serving-Information-Response      HS-DSCH-FDD-Secondary-Serving-Information-Response,
    hSDSCH-RNTI                                            HSDSCH-RNTI,
    iE-Extensions                       ProtocolExtensionContainer { { HS-Secondary-Serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

HS-Secondary-Serving-cell-change-successful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-Secondary-Serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { HS-Secondary-Serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

HS-Secondary-Serving-cell-change-unsuccessful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
HS-DSCH-Secondary-Serving-Remove ::= NULL


HSDSCH-Information-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-to-Modify     HSDSCH-MACdFlow-Specific-InfoList-to-Modify     OPTIONAL,
    priorityQueue-Info-to-Modify                    PriorityQueue-InfoList-to-Modify                OPTIONAL,
    mAChs-Reordering-Buffer-Size-for-RLC-UM         MAChsReorderingBufferSize-for-RLC-UM            OPTIONAL,
    cqiFeedback-CycleK                              CQI-Feedback-Cycle                              OPTIONAL,   -- For FDD only
    cqiRepetitionFactor                             CQI-RepetitionFactor                            OPTIONAL,   -- For FDD only
    ackNackRepetitionFactor                         AckNack-RepetitionFactor                        OPTIONAL,   -- For FDD only
    cqiPowerOffset                                  CQI-Power-Offset                                OPTIONAL,   -- For FDD only
    ackPowerOffset                                  Ack-Power-Offset                                OPTIONAL,   -- For FDD only
    nackPowerOffset                                 Nack-Power-Offset                               OPTIONAL,   -- For FDD only
    hsscch-PowerOffset                              HSSCCH-PowerOffset                              OPTIONAL,   -- For FDD only
    hSSCCH-CodeChangeGrant                          HSSCCH-Code-Change-Grant                        OPTIONAL,
    tDDAckNackPowerOffset                           TDD-AckNack-Power-Offset                        OPTIONAL,   -- For TDD only
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIEs } }        OPTIONAL,
    ...
}

HSDSCH-Information-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HARQ-Preamble-Mode              CRITICALITY ignore      EXTENSION   HARQ-Preamble-Mode                      PRESENCE optional}|
{ ID id-HS-PDSCH-Code-Change-Grant      CRITICALITY ignore      EXTENSION   HS-PDSCH-Code-Change-Grant              PRESENCE optional}|
     -- Applicable to FDD only
{ ID id-MIMO-Mode-Indicator                 CRITICALITY reject      EXTENSION   MIMO-Mode-Indicator                 PRESENCE optional}|
{ ID id-HSDSCH-MACdPDUSizeFormat            CRITICALITY reject      EXTENSION   HSDSCH-MACdPDUSizeFormat            PRESENCE optional}|
{ ID id-SixtyfourQAM-UsageAllowedIndicator  CRITICALITY ignore      EXTENSION   SixtyfourQAM-UsageAllowedIndicator  PRESENCE optional}|
{ ID id-UE-Capabilities-Info                CRITICALITY ignore      EXTENSION   UE-Capabilities-Info                PRESENCE optional}|
{ ID id-EnhancedHSServingCC-Abort           CRITICALITY reject      EXTENSION   EnhancedHSServingCC-Abort           PRESENCE optional}|
{ ID id-UE-SupportIndicatorExtension        CRITICALITY ignore      EXTENSION   UE-SupportIndicatorExtension        PRESENCE optional}|
{ ID id-power-offset-for-S-CPICH-for-MIMO-Request-Indicator     CRITICALITY ignore  EXTENSION PowerOffsetForSecondaryCPICHforMIMORequestIndicator
          PRESENCE optional}|
{ ID id-Single-Stream-MIMO-Mode-Indicator   CRITICALITY reject      EXTENSION   Single-Stream-MIMO-Mode-Indicator   PRESENCE optional},
    ...
}
```

```
HSDSCH-Information-to-Modify-Unsynchronised ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-to-Modify     HSDSCH-MACdFlow-Specific-InfoList-to-Modify          OPTIONAL,
    priorityQueueInfotoModifyUnsynchronised         PriorityQueue-InfoList-to-Modify-Unsynchronised                  OPTIONAL,
    cqiPowerOffset                                  CQI-Power-Offset               OPTIONAL,   -- For FDD only
    ackPowerOffset                                  Ack-Power-Offset               OPTIONAL,   -- For FDD only
    nackPowerOffset                                 Nack-Power-Offset              OPTIONAL,   -- For FDD only
    hsscch-PowerOffset                              HSSCCH-PowerOffset             OPTIONAL,   -- Only for FDD
    tDDAckNackPowerOffset                           TDD-AckNack-Power-Offset       OPTIONAL,   -- For TDD only
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HARQ-Preamble-Mode                  CRITICALITY ignore      EXTENSION   HARQ-Preamble-Mode                 PRESENCE optional}|
{ ID id-MIMO-Mode-Indicator                 CRITICALITY reject      EXTENSION   MIMO-Mode-Indicator                PRESENCE optional}|
{ ID id-SixtyfourQAM-UsageAllowedIndicator  CRITICALITY ignore      EXTENSION   SixtyfourQAM-UsageAllowedIndicator  PRESENCE optional}|
{ ID id-EnhancedHSServingCC-Abort           CRITICALITY reject      EXTENSION   EnhancedHSServingCC-Abort          PRESENCE optional}|
{ ID id-UE-SupportIndicatorExtension        CRITICALITY ignore      EXTENSION   UE-SupportIndicatorExtension    PRESENCE optional}|
{ ID id-power-offset-for-S-CPICH-for-MIMO-Request-Indicator     CRITICALITY ignore  EXTENSION PowerOffsetForSecondaryCPICHforMIMORequestIndicator
            PRESENCE optional}|
{ ID id-Single-Stream-MIMO-Mode-Indicator   CRITICALITY reject      EXTENSION   Single-Stream-MIMO-Mode-Indicator  PRESENCE optional},
    ...
}

HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)

HSDSCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem

HSDSCH-MACdPDUSizeFormat ::= ENUMERATED {
    indexedMACdPDU-Size,
    flexibleMACdPDU-Size
}

HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    hSDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority,
    trafficClass                        TrafficClass,
    bindingID                           BindingID                                   OPTIONAL,
    transportLayerAddress               TransportLayerAddress                       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs } }      OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos           CRITICALITY ignore      EXTENSION   TnlQos  PRESENCE optional }|
    {ID id-TrCH-SrcStatisticsDescr  CRITICALITY ignore  EXTENSION   TrCH-SrcStatisticsDescr PRESENCE optional },
    ...
}

HSDSCH-MACdFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-Response

HSDSCH-MACdFlow-Specific-InfoItem-Response ::= SEQUENCE {
```

```
    hSDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    bindingID                           BindingID                                   OPTIONAL,
    transportLayerAddress               TransportLayerAddress                       OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation  HSDSCH-Initial-Capacity-Allocation          OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs } }      OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority             OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    trafficClass                        TrafficClass                            OPTIONAL,
    bindingID                           BindingID                               OPTIONAL,
    transportLayerAddress               TransportLayerAddress                   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs } }        OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos           CRITICALITY ignore      EXTENSION   TnlQos  PRESENCE optional },
    ...
}

HSDSCH-MACdFlows-Information ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-Info               HSDSCH-MACdFlow-Specific-InfoList,
    priorityQueue-Info                          PriorityQueue-InfoList,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-MACdFlows-Information-ExtIEs } }        OPTIONAL,
    ...
}


HSDSCH-MACdFlows-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlows-to-Delete-Item

HSDSCH-MACdFlows-to-Delete-Item ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlows-to-Delete-Item-ExtIEs} }      OPTIONAL,
    ...
}

HSDSCH-MACdFlows-to-Delete-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HSDSCH-Initial-Capacity-Allocation::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF HSDSCH-Initial-Capacity-AllocationItem

HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    maximum-MACdPDU-Size            MACdPDU-Size,
    hSDSCH-InitialWindowSize        HSDSCH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { {HSDSCH-Initial-Capacity-AllocationItem-ExtIEs} } OPTIONAL,
    ...
}

HSDSCH-Initial-Capacity-AllocationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-MaximumMACdPDU-SizeExtended     CRITICALITY ignore      EXTENSION   MAC-PDU-SizeExtended  PRESENCE optional},
    ...
}

HSDSCH-InitialWindowSize            ::= INTEGER (1..255)
-- Number of MAC-d PDUs.



HSDSCH-PreconfigurationInfo ::= SEQUENCE {
    setsOfHS-SCCH-Codes     SetsOfHS-SCCH-Codes,
    hARQ-MemoryPartitioning     HARQ-MemoryPartitioning,
    eDCH-FDD-DL-ControlChannelInformation       EDCH-FDD-DL-ControlChannelInformation       OPTIONAL,
    hARQ-Preamble-Mode-Activation-Indicator     HARQ-Preamble-Mode-Activation-Indicator     OPTIONAL,
    mIMO-N-M-Ratio          MIMO-InformationResponse        OPTIONAL,
    continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response    Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response
    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-PreconfigurationInfo-ExtIEs} }          OPTIONAL,
    ...
}

HSDSCH-PreconfigurationInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-power-offset-for-S-CPICH-for-MIMO   CRITICALITY ignore  EXTENSION PowerOffsetForSecondaryCPICHforMIMO    PRESENCE optional}|
{ ID id-Additional-EDCH-Preconfiguration-Information        CRITICALITY ignore  EXTENSION Additional-EDCH-Preconfiguration-Information
    PRESENCE optional },
    ...
}

Additional-EDCH-Preconfiguration-Information    ::= SEQUENCE (SIZE (1..maxNrOfEDCH-1)) OF Additional-EDCH-Preconfiguration-Information-ItemIEs

Additional-EDCH-Preconfiguration-Information-ItemIEs    ::= SEQUENCE {
    eDCH-FDD-DL-ControlChannelInformation       EDCH-FDD-DL-ControlChannelInformation,
    iE-Extensions                   ProtocolExtensionContainer { { Additional-EDCH-Preconfiguration-Information-ItemIEs-ExtIEs} } OPTIONAL,
    ...
}

Additional-EDCH-Preconfiguration-Information-ItemIEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


HSDSCH-PreconfigurationSetup ::= SEQUENCE {
    mAChsResetScheme        MAChsResetScheme,
```

```
    hSDSCH-Physical-Layer-Category      INTEGER (1..64,...),
    mAChs-Reordering-Buffer-Size-for-RLC-UM     MAChsReorderingBufferSize-for-RLC-UM,
    secondaryServingCells       SecondaryServingCells           OPTIONAL,
    numPrimaryHS-SCCH-Codes     NumHS-SCCH-Codes            OPTIONAL,
    hARQ-Preamble-Mode      HARQ-Preamble-Mode                      OPTIONAL,
    mIMO-ActivationIndicator        MIMO-ActivationIndicator            OPTIONAL,
    hSDSCH-MACdPDUSizeFormat        HSDSCH-MACdPDUSizeFormat            OPTIONAL,
    sixtyfourQAM-UsageAllowedIndicator      SixtyfourQAM-UsageAllowedIndicator          OPTIONAL,
    uE-with-enhanced-HS-SCCH-support-indicator      NULL        OPTIONAL,
    continuous-Packet-Connectivity-HS-SCCH-Less-Information         Continuous-Packet-Connectivity-HS-SCCH-Less-Information    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCHPreconfigurationSetup-ExtIEs } }      OPTIONAL,
    ...
}

HSDSCHPreconfigurationSetup-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-UE-SupportIndicatorExtension                    CRITICALITY ignore      EXTENSION   UE-SupportIndicatorExtension  PRESENCE optional}|
{ ID id-power-offset-for-S-CPICH-for-MIMO-Request-Indicator     CRITICALITY ignore  EXTENSION PowerOffsetForSecondaryCPICHforMIMORequestIndicator
    PRESENCE optional},
    ...
}


HS-SCCH-PreconfiguredCodes              ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HS-SCCH-PreconfiguredCodesItem

HS-SCCH-PreconfiguredCodesItem ::= SEQUENCE {
    hS-SCCH-CodeNumber          HS-SCCH-CodeNumber,
    iE-Extensions           ProtocolExtensionContainer { { HS-SCCH-PreconfiguredCodesItem-ExtIEs} } OPTIONAL,
    ...
}

HS-SCCH-PreconfiguredCodesItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-CodeNumber ::= INTEGER (0..127)


HSDSCH-RNTI ::= INTEGER (0..65535)


HS-DSCH-serving-cell-change-information ::= SEQUENCE {
    hS-PDSCH-RLID               RL-ID,
    hSDSCH-FDD-Information      HSDSCH-FDD-Information                                                  OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { HS-DSCH-serving-cell-change-information-ExtIEs} }   OPTIONAL,
    ...
}

HS-DSCH-serving-cell-change-information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information CRITICALITY reject  EXTENSION Continuous-Packet-Connectivity-HS-SCCH-Less-
Information     PRESENCE optional}|
{ ID id-Continuous-Packet-Connectivity-DTX-DRX-Information  CRITICALITY reject  EXTENSION Continuous-Packet-Connectivity-DTX-DRX-Information
    PRESENCE optional},
    ...
}
```

```
HS-DSCH-serving-cell-change-informationResponse ::= SEQUENCE {
    hS-DSCH-serving-cell-choice     HS-DSCH-serving-cell-change-choice,
    iE-Extensions                   ProtocolExtensionContainer { { HS-DSCH-serving-cell-change-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCH-serving-cell-change-informationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-serving-cell-change-choice ::= CHOICE {
    hS-serving-cell-change-successful       HS-serving-cell-change-successful,
    hS-serving-cell-change-unsuccessful     HS-serving-cell-change-unsuccessful,
    ...
}

HSDSCH-TBSizeTableIndicator ::= ENUMERATED {
    octet-aligned
}

HS-serving-cell-change-successful ::= SEQUENCE {
    hSDSCH-FDD-Information-Response     HSDSCH-FDD-Information-Response,
    hSDSCH-RNTI                         HSDSCH-RNTI,
    iE-Extensions                       ProtocolExtensionContainer { { HS-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

HS-serving-cell-change-successful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response    CRITICALITY ignore  EXTENSION Continuous-Packet-Connectivity-HS-SCCH-
Less-Information-Response       PRESENCE optional},
    ...
}

HS-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { HS-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

HS-serving-cell-change-unsuccessful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-First-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
    -- index of first HS-PDSCH code

HSPDSCH-Second-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
    -- index of second HS-PDSCH code

HSPDSCH-Second-Code-Support ::= BOOLEAN
    -- true: applied, false: not applied
```

```
HSDSCH-TDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information                HSDSCH-MACdFlows-Information,
    uE-Capabilities-Info                        UE-Capabilities-Info,
    mAChs-Reordering-Buffer-Size-for-RLC-UM     MAChsReorderingBufferSize-for-RLC-UM,
    tDD-AckNack-Power-Offset                    TDD-AckNack-Power-Offset,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs } }      OPTIONAL,
    ...
}

HSDSCH-TDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HSDSCH-MACdPDUSizeFormat    CRITICALITY reject      EXTENSION   HSDSCH-MACdPDUSizeFormat  PRESENCE optional}|
{ ID id-HSSICH-SIRTarget            CRITICALITY ignore      EXTENSION UL-SIR                                    PRESENCE optional}|
-- Applicable to 1.28Mcps TDD only
{ ID id-HSSICH-TPC-StepSize         CRITICALITY ignore      EXTENSION TDD-TPC-UplinkStepSize-LCR                PRESENCE optional}|
-- Mandatory for 1.28Mcps TDD only
{ ID id-tSN-Length                  CRITICALITY reject      EXTENSION TSN-Length                PRESENCE optional }|
-- Applicable for 1.28Mcps TDD when using multiple frequencies
{ ID id-MIMO-ActivationIndicator    CRITICALITY reject      EXTENSION   MIMO-ActivationIndicator          PRESENCE optional},
    ...
}

HSDSCH-TDD-Information-Response ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-Response      HSDSCH-MACdFlow-Specific-InfoList-Response      OPTIONAL,
    hSSCCH-TDD-Specific-InfoList-Response           HSSCCH-TDD-Specific-InfoList-Response           OPTIONAL,
    -- Not Applicable to 1.28Mcps TDD
    hSSCCH-TDD-Specific-InfoList-Response-LCR       HSSCCH-TDD-Specific-InfoList-Response-LCR       OPTIONAL,
    -- Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. This HSSCCH Specific Information is for the first Frequency repetition, HSSCCH Specific
Information for Frequency repetitions 2 and on, should be defined in MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR
    hSPDSCH-TDD-Specific-InfoList-Response          HSPDSCH-TDD-Specific-InfoList-Response          OPTIONAL,
    hSPDSCH-TDD-Specific-InfoList-Response-LCR      HSPDSCH-TDD-Specific-InfoList-Response-LCR      OPTIONAL,
    hARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                         OPTIONAL,
    -- For 1.28Mcps TDD, this HARQ Memory Partitioning Information is for the first Frequency repetition, HARQ Memory Partitioning Information for
Frequency repetitions 2 and on, should be defined in  MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }        OPTIONAL,
    ...
}

HSDSCH-TDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-User-Plane-Congestion-Fields-Inclusion                  CRITICALITY ignore  EXTENSION User-Plane-Congestion-Fields-Inclusion
    PRESENCE optional}|
{ ID id-hSSCCH-TDD-Specific-InfoList-Response768                CRITICALITY ignore  EXTENSION HSSCCH-TDD-Specific-InfoList-Response768
    PRESENCE optional}|
{ ID id-hSPDSCH-TDD-Specific-InfoList-Response768               CRITICALITY ignore  EXTENSION HSPDSCH-TDD-Specific-InfoList-Response768
    PRESENCE optional}|
{ ID id-UARFCNforNt                                             CRITICALITY ignore  EXTENSION UARFCN
    PRESENCE optional}|
-- Applicable to 1.28Mcps TDD when using multiple frequencies ,This is the UARFCN for the first Frequency repetition
{ ID id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR     CRITICALITY ignore  EXTENSION MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR
PRESENCE optional }|
-- Applicable to 1.28Mcps TDD when using multiple frequencies ,This MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR is the HS-SCCH and HARQ
Memory Partitioning information for the 2nd and beyond HS-PDSCH frequencies
{ ID id-multicarrier-number                                     CRITICALITY ignore  EXTENSION  Multicarrier-Number
    PRESENCE optional }|
```

```
-- Applicable for 1.28Mcps TDD when using multiple frequencies
{ID id-MIMO-SFMode-For-HSPDSCHDualStream            CRITICALITY reject      EXTENSION MIMO-SFMode-For-HSPDSCHDualStream                    PRESENCE
optional}|
{ID id-MIMO-ReferenceSignal-InformationListLCR      CRITICALITY reject  EXTENSION MIMO-ReferenceSignal-InformationListLCR    PRESENCE optional}|
{ ID id-TS0-HS-PDSCH-Indication-LCR CRITICALITY ignore      EXTENSION TS0-HS-PDSCH-Indication-LCR       PRESENCE optional }|
{ ID id-Out-of-Sychronization-Window                    CRITICALITY reject      EXTENSION Out-of-Sychronization-Window         PRESENCE optional},
    ...
}

Multicarrier-Number ::= INTEGER (1..maxHSDPAFrequency)

HSPDSCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfDLTs)) OF HSPDSCH-TDD-Specific-InfoItem-Response

HSPDSCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    iE-Extensions                               ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
    ...
}

HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF HSPDSCH-TDD-Specific-InfoItem-Response-LCR

HSPDSCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE {
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    iE-Extensions                               ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    OPTIONAL,
    ...
}

HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-TDD-Specific-InfoList-Response768 ::= SEQUENCE (SIZE (0..maxNrOfDLTs)) OF HSPDSCH-TDD-Specific-InfoItem-Response768

HSPDSCH-TDD-Specific-InfoItem-Response768 ::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    iE-Extensions                               ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-768-ExtIEs } }
    OPTIONAL,
    ...
}

HSPDSCH-TDD-Specific-InfoItem-Response-768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-FDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-FDD-Specific-InfoItem-Response
```

```
HSSCCH-FDD-Specific-InfoItem-Response ::= SEQUENCE {
    code-Number                                     INTEGER (0..127),
    iE-Extensions                                   ProtocolExtensionContainer { { HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

HSSCCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response

HSSCCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot                                        TimeSlot,
    midambleShiftAndBurstType                       MidambleShiftAndBurstType,
    tDD-ChannelisationCode                          TDD-ChannelisationCode,
    hSSICH-Info                                     HSSICH-Info,
    iE-Extensions                                   ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response-LCR

HSSCCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE {
    timeslotLCR                                     TimeSlotLCR,
    midambleShiftLCR                                MidambleShiftLCR,
    first-TDD-ChannelisationCode                    TDD-ChannelisationCode,
    second-TDD-ChannelisationCode                 TDD-ChannelisationCode,
    hSSICH-InfoLCR                                  HSSICH-InfoLCR,
    iE-Extensions                                   ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-TDD-Specific-InfoList-Response768 ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response768

HSSCCH-TDD-Specific-InfoItem-Response768 ::= SEQUENCE {
    timeslot                                        TimeSlot,
    midambleShiftAndBurstType768                    MidambleShiftAndBurstType768,
```

```
    tDD-ChannelisationCode768                   TDD-ChannelisationCode768,
    hSSICH-Info768                              HSSICH-Info768,
    iE-Extensions                               ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response768-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-TDD-Specific-InfoItem-Response768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSICH-Info ::= SEQUENCE {
    hsSICH-ID                                   HS-SICH-ID,
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { HSSICH-Info-ExtIEs } }       OPTIONAL,
    ...
}

HSSICH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSICH-InfoLCR ::= SEQUENCE {
    hsSICH-ID                                   HS-SICH-ID,
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    tDD-ChannelisationCode                    TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }      OPTIONAL,
    ...
}

HSSICH-Info-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-SICH-ID-Extension            CRITICALITY ignore      EXTENSION HS-SICH-ID-Extension   PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

HSSICH-Info768 ::= SEQUENCE {
    hsSICH-ID                                   HS-SICH-ID,
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768                   TDD-ChannelisationCode768,
    iE-Extensions                               ProtocolExtensionContainer { { HSSICH-Info-768-ExtIEs } }      OPTIONAL,
    ...
}

HSSICH-Info-768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Reception-Quality-Value ::= SEQUENCE {
    failed-HS-SICH              HS-SICH-failed,
```

```
    missed-HS-SICH              HS-SICH-missed,
    total-HS-SICH               HS-SICH-total,
    iE-Extensions               ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs} } OPTIONAL,
...
}

HS-SICH-Reception-Quality-Value-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-failed ::= INTEGER (0..20)

HS-SICH-missed ::= INTEGER (0..20)

HS-SICH-total ::= INTEGER (0..20)

HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
-- According to mapping in [23]

HS-SICH-ID ::= INTEGER (0..31)

HS-SICH-ID-Extension ::= INTEGER (32..255,...)

HSSCCH-CodeChangeIndicator  ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
}

HSSCCH-Code-Change-Grant    ::= ENUMERATED {
    changeGranted
}

HS-PDSCH-Code-Change-Indicator  ::= ENUMERATED {
    hsPDSCHCodeChangeNeeded
}

HS-PDSCH-Code-Change-Grant  ::= ENUMERATED {
    changeGranted
}

HSDSCH-FDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                   HSSCCH-CodeChangeIndicator              OPTIONAL,
    cqiFeedback-CycleK                          CQI-Feedback-Cycle                      OPTIONAL,
    cqiRepetitionFactor                         CQI-RepetitionFactor                    OPTIONAL,
    ackNackRepetitionFactor                     AckNack-RepetitionFactor                OPTIONAL,
    cqiPowerOffset                              CQI-Power-Offset                        OPTIONAL,
    ackPowerOffset                              Ack-Power-Offset                        OPTIONAL,
    nackPowerOffset                             Nack-Power-Offset                       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-FDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ID id-HS-PDSCH-Code-Change-Indicator       CRITICALITY ignore      EXTENSION   HS-PDSCH-Code-Change-Indicator      PRESENCE optional },
    ...
```

```
}

HSDSCH-TDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                       HSSCCH-CodeChangeIndicator                  OPTIONAL,
    tDDAckNackPowerOffset                           TDD-AckNack-Power-Offset                    OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-TDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MIMO-ReferenceSignal-InformationListLCR ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSICH-ReferenceSignal-InformationLCR

HSSICH-ReferenceSignal-InformationLCR ::= SEQUENCE {
    midambleConfigurationLCR        MidambleConfigurationLCR,
    midambleShift                   INTEGER (0..15),
    timeSlotLCR                     TimeSlotLCR,
    iE-Extensions                   ProtocolExtensionContainer { { HSSICH-ReferenceSignal-InformationLCR-ExtIEs } }   OPTIONAL,
    ...
}

HSSICH-ReferenceSignal-InformationLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-Semi-PersistentScheduling-Information-LCR ::= SEQUENCE {
    transport-Block-Size-List               Transport-Block-Size-List-LCR,
    repetition-Period-List-LCR              Repetition-Period-List-LCR,
    hS-DSCH-SPS-Reservation-Indicator       SPS-Reservation-Indicator               OPTIONAL,
    hS-DSCH-SPS-Operation-Indicator         HS-DSCH-SPS-Operation-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { HS-DSCH-Semi-PersistentScheduling-Information-LCR-ExtIEs } }
    OPTIONAL,
    ...
}

HS-DSCH-Semi-PersistentScheduling-Information-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-Physical-Layer-Category ::= INTEGER (1..64)

Transport-Block-Size-List-LCR ::= SEQUENCE (SIZE (1..maxNoOfTBSs-Mapping-HS-DSCH-SPS)) OF Transport-Block-Size-Item-LCR

Transport-Block-Size-Item-LCR ::= SEQUENCE {
    transport-Block-Size-maping-Index-LCR       Transport-Block-Size-maping-Index-LCR,
    transport-Block-Size-Index-LCR              Transport-Block-Size-Index-LCR,
    iE-Extensions                               ProtocolExtensionContainer { { Transport-Block-Size-Item-LCR-ExtIEs } }        OPTIONAL,
    ...
}

Transport-Block-Size-Item-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

Transport-Block-Size-maping-Index-LCR ::= INTEGER (0..maxNoOfTBSs-Mapping-HS-DSCH-SPS-1)

Transport-Block-Size-Index-LCR ::= INTEGER (1..maxNoOfHS-DSCH-TBSsLCR)

TS0-HS-PDSCH-Indication-LCR ::= NULL

Repetition-Period-List-LCR ::= SEQUENCE (SIZE (1..maxNoOfRepetition-Period-LCR)) OF Repetition-Period-Item-LCR

Repetition-Period-Item-LCR ::= SEQUENCE {
    repetitionPeriodIndex       RepetitionPeriodIndex,
    repetitionPeriod            RepetitionPeriod,
    repetitionLength            RepetitionLength               OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { Repetition-Period-Item-LCR-ExtIEs } }      OPTIONAL,
    ...
}

Repetition-Period-Item-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RepetitionPeriodIndex ::= INTEGER (0..maxNoOfRepetitionPeriod-SPS-LCR-1)

SPS-Reservation-Indicator ::= ENUMERATED {
    reserve
}

HS-DSCH-SPS-Operation-Indicator ::= CHOICE {
    logicalChannellevel         LogicalChannellevel,
    priorityQueuelevel          PriorityQueuelevel,
    ...
}

LogicalChannellevel ::= BIT STRING (SIZE (16))

PriorityQueuelevel ::= BIT STRING (SIZE (8))

HS-DSCH-Semi-PersistentScheduling-Information-to-Modify-LCR ::= SEQUENCE {
    transport-Block-Size-List               Transport-Block-Size-List-LCR              OPTIONAL,
    repetition-Period-List-LCR              Repetition-Period-List-LCR             OPTIONAL,
    hS-DSCH-SPS-Reservation-Indicator       SPS-Reservation-Indicator              OPTIONAL,
    hS-DSCH-SPS-Operation-Indicator         HS-DSCH-SPS-Operation-Indicator        OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-DSCH-Semi-PersistentScheduling-Information-to-Modify-LCR-ExtIEs } }
                            OPTIONAL,
    ...
}

HS-DSCH-Semi-PersistentScheduling-Information-to-Modify-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR ::= SEQUENCE {
    hS-SICH-InformationList-for-HS-DSCH-SPS     HS-SICH-InformationList-for-HS-DSCH-SPS,
```

```
    initial-HS-PDSCH-SPS-Resource               Initial-HS-PDSCH-SPS-Resource           OPTIONAL,
    buffer-Size-for-HS-DSCH-SPS                 Process-Memory-Size                     OPTIONAL,
    number-of-Processes-for-HS-DSCH-SPS         Number-of-Processes-for-HS-DSCH-SPS     OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR-ExtIEs } }
            OPTIONAL,
    ...
}

HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


HS-SICH-InformationList-for-HS-DSCH-SPS ::= SEQUENCE (SIZE (1..maxNoOf-HS-SICH-SPS)) OF HS-SICH-InformationItem-for-HS-DSCH-SPS

HS-SICH-InformationItem-for-HS-DSCH-SPS ::= SEQUENCE {
    hS-SICH-Mapping-Index           HS-SICH-Mapping-Index           OPTIONAL,
    hS-SICH-Type                    HS-SICH-Type,
    iE-Extensions                   ProtocolExtensionContainer { { HS-SICH-InformationItem-for-HS-DSCH-SPS-ExtIEs } }       OPTIONAL,
    ...
}

HS-SICH-InformationItem-for-HS-DSCH-SPS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Mapping-Index ::= INTEGER (0..maxNoOf-HS-SICH-SPS-1)

HS-SICH-Type ::= CHOICE {
    hS-SCCH-Associated-HS-SICH          HS-SCCH-Associated-HS-SICH,
    non-HS-SCCH-Associated-HS-SICH      Non-HS-SCCH-Associated-HS-SICH,
    ...
}

HS-SCCH-Associated-HS-SICH ::= SEQUENCE {
    hsSICH-ID                           HS-SICH-ID,
    extended-HS-SICH-ID                 HS-SICH-ID-Extension            OPTIONAL,
...
}


Non-HS-SCCH-Associated-HS-SICH::= SEQUENCE {
    non-HS-SCCH-Aassociated-HS-SICH-ID  Non-HS-SCCH-Aassociated-HS-SICH-ID,
...
}

Non-HS-SCCH-Aassociated-HS-SICH-ID ::= INTEGER (0..255)

Initial-HS-PDSCH-SPS-Resource::= SEQUENCE {
    repetitionPeriodIndex                       RepetitionPeriodIndex,
    repetitionLength                            RepetitionLength            OPTIONAL,
    hS-PDSCH-Offset                             TDD-PhysicalChannelOffset,
    hS-PDSCH-Midamble-Configuation              MidambleShiftLCR,
    timeslot-Resource-Related-Information       HS-DSCH-TimeslotResourceLCR,
```

```
    startCode                                   TDD-ChannelisationCode,
    endCode                                     TDD-ChannelisationCode,
    transport-Block-Size-Index                  Transport-Block-Size-Index-LCR,
    modulationType                              ModulationSPS-LCR,
    hS-SICH-Mapping-Index                       HS-SICH-Mapping-Index,
    iE-Extensions                               ProtocolExtensionContainer { { Initial-HS-PDSCH-SPS-Resource-ExtIEs } }        OPTIONAL,
...
}

Initial-HS-PDSCH-SPS-Resource-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-TimeslotResourceLCR ::= BIT STRING (SIZE (5))

ModulationSPS-LCR ::= ENUMERATED {
    qPSK,
    sixteenQAM,
    ...
}

Number-of-Processes-for-HS-DSCH-SPS ::= INTEGER (1..16)

-- I

IMEI        ::= OCTET STRING (SIZE(8))

IMEISV      ::= OCTET STRING (SIZE(8))

IMSI        ::= OCTET STRING (SIZE(3..8))

Inactivity-Threshold-for-UE-DTX-Cycle2 ::= ENUMERATED {v1, v4, v8, v16, v32, v64, v128, v256}
-- Unit E-DCH TTI

Inactivity-Threshold-for-UE-DRX-Cycle ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512}
-- Unit subframe

Inactivity-Threshold-for-UE-Grant-Monitoring ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256}
-- Unit E-DCH TTI



InformationAvailable::= SEQUENCE {
    requestedDataValue      RequestedDataValue,
    iE-Extensions           ProtocolExtensionContainer { { InformationAvailable-ExtIEs} }       OPTIONAL,
    ...
}

InformationAvailable-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeID ::= INTEGER (0..1048575)
```

```
InformationNotAvailable ::= NULL

InformationReportCharacteristics ::= CHOICE {
    onDemand                NULL,
    periodic                PeriodicInformation,
    onModification          OnModificationInformation,
    ...
}

InformationReportPeriodicity ::= CHOICE {
    min             INTEGER (1..60,...),
-- Unit min, Step 1min
    hour            INTEGER (1..24,...),
-- Unit hour, Step 1hour
    ...
}

InformationThreshold ::= CHOICE {
    dGPSThreshold       DGPSThreshold,
    ...,
    dGANSSThreshold     DGANSSThreshold
}


InformationType ::= SEQUENCE {
    informationTypeItem     ENUMERATED {
        gA-AccessPointPositionwithAltitude,
        gA-AccessPointPosition,
        iPDLParameters,
        gPSInformation,
        dGPSCorrections,
        gPS-RX-POS,
        sFNSFN-GA-AccessPointPosition,
        ...,
        cell-Capacity-Class,
        nACC-Related-Data,
        mBMSBearerServiceFullAddress,
        interFrequencyCellInformation,
        gANSSInformation,
        dGANSSCorrections,
        gANSS-RX-Pos,
        mBMS-Counting-Information,
        mBMS-Transmission-Mode,
        mBMS-Neighbouring-Cell-Information,
        mBMS-RLC-Sequence-Number
    },
    gPSInformation              GPSInformation          OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { InformationType-ExtIEs} }        OPTIONAL,
    ...
}

-- The GPS Information IE shall be present if the Information Exchange Type IE indicates 'GPS Information'
-- For information exchange on the Iur-g interface, only the Cell Capacity Class is used.
```

```
InformationType-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- The following IE shall be present if the Information Type Item IE indicates 'GANSS Information'
    { ID id-GANSS-Information           CRITICALITY ignore  EXTENSION GANSS-Information         PRESENCE conditional }|
-- The following IE shall be present if the Information Type Item IE indicates 'DGANSS Corrections'
    { ID id-DGANSS-Corrections-Req      CRITICALITY ignore  EXTENSION DGANSS-Corrections-Req    PRESENCE conditional }|
-- The following IE shall be present if the Information Type Item IE indicates 'MBMS RLC Sequence Number'
    { ID id-MBMS-RLC-Sequence-Number-Information       CRITICALITY ignore  EXTENSION MBMS-RLC-Sequence-Number-Information  PRESENCE conditional },
    ...
}

Initial-DL-DPCH-TimingAdjustment-Allowed ::= ENUMERATED {
    initial-DL-DPCH-TimingAdjustment-Allowed
}

InnerLoopDLPCStatus     ::= ENUMERATED {active, inactive}

IPDLParameters ::= CHOICE {
    iPDL-FDD-Parameters         IPDL-FDD-Parameters,
    iPDL-TDD-Parameters         IPDL-TDD-Parameters,    --3.84Mcps TDD and 7.68Mcps TDD only
    ...,
    extension-IPDLParameters    Extension-IPDLParameters
}

Extension-IPDLParameters    ::= ProtocolIE-Single-Container {{ Extension-IPDLParametersIE }}

Extension-IPDLParametersIE RNSAP-PROTOCOL-IES ::= {
    { ID id-IPDL-TDD-ParametersLCR  CRITICALITY reject  TYPE IPDL-TDD-ParametersLCR PRESENCE mandatory },
    ...
}

Inter-Frequency-Cell-List   ::= SEQUENCE (SIZE (0..maxCellsMeas)) OF Inter-Frequency-Cell

Inter-Frequency-Cell ::= SEQUENCE {
    dL-UARFCN                   UARFCN,
    uL-UARFCN                   UARFCN      OPTIONAL,
    primaryScramblingCode       PrimaryScramblingCode,
    iE-Extensions               ProtocolExtensionContainer { {Inter-Frequency-Cell-ExtIEs} }      OPTIONAL,
    ...
}

Inter-Frequency-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Inter-Frequency-Cell-Information ::= SEQUENCE {
    inter-Frequency-Cell-Information-SIB11      Inter-Frequency-Cell-Information-SIB11,
    inter-Frequency-Cell-Information-SIB12      Inter-Frequency-Cell-Information-SIB12,
    iE-Extensions               ProtocolExtensionContainer { {Inter-Frequency-Cell-Information-ExtIEs } } OPTIONAL,
    ...
}

Inter-Frequency-Cell-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Inter-Frequency-Cell-Information-SIB11 ::= SEQUENCE (SIZE (0..2)) OF Inter-Frequency-Cells-Information-SIB11-Per-Indication

Inter-Frequency-Cell-Information-SIB12 ::= SEQUENCE (SIZE (0..2)) OF Inter-Frequency-Cells-Information-SIB12-Per-Indication

Inter-Frequency-Cells-Information-SIB11-Per-Indication ::= SEQUENCE {
    inter-Frequency-Cell-Indication-SIB11   Inter-Frequency-Cell-Indication,
    inter-Frequency-Cell-List-SIB11     Inter-Frequency-Cell-SIB11-or-SIB12-List,
    iE-Extensions               ProtocolExtensionContainer { { Inter-Frequency-Cells-Information-SIB11-Per-Indication-ExtIEs } }  OPTIONAL,
    ...
}

Inter-Frequency-Cells-Information-SIB11-Per-Indication-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Inter-Frequency-Cells-Information-SIB12-Per-Indication ::= SEQUENCE {
    inter-Frequency-Cell-Indication-SIB12   Inter-Frequency-Cell-Indication,
    inter-Frequency-Cell-List-SIB12     Inter-Frequency-Cell-SIB11-or-SIB12-List,
    iE-Extensions               ProtocolExtensionContainer { { Inter-Frequency-Cells-Information-SIB12-Per-Indication-ExtIEs } }  OPTIONAL,
    ...
}

Inter-Frequency-Cells-Information-SIB12-Per-Indication-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Inter-Frequency-Cell-Indication ::= INTEGER (0..1)
Inter-Frequency-Cell-SIB11-or-SIB12-List ::= SEQUENCE (SIZE (0..maxCellSIB11OrSIB12)) OF Inter-Frequency-Cell-SIB11-or-SIB12

Inter-Frequency-Cell-SIB11-or-SIB12 ::= SEQUENCE {
    interFrequencyCellID        InterFrequencyCellID,
    dL-UARFCN                   UARFCN,
    uL-UARFCN                   UARFCN      OPTIONAL,
    primaryScramblingCode       PrimaryScramblingCode,
    iE-Extensions               ProtocolExtensionContainer { {Inter-Frequency-Cell-ExtIEs} }      OPTIONAL,
    ...
}

InterFrequencyCellID ::= INTEGER (0..31)


IPDL-FDD-Parameters ::= SEQUENCE {
    iPSpacingFDD                IPSpacingFDD,
    iPLength                    IPLength,
    iPOffset                    IPOffset,
    seed                        Seed,
    burstModeParameters         BurstModeParameters     OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { IPDL-FDD-Parameters-ExtIEs} }      OPTIONAL,
    ...
}

IPDL-FDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

IPDL-TDD-Parameters ::= SEQUENCE {
    iPSpacingTDD                IPSpacingTDD,
    iPStart                     IPStart,
    iPSlot                      IPSlot,
    iP-P-CCPCH                  IP-P-CCPCH,
    burstModeParameters         BurstModeParameters     OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { IPDL-TDD-Parameters-ExtIEs} }      OPTIONAL,
    ...
}

-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.

IPDL-TDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDL-TDD-ParametersLCR ::= SEQUENCE {
    iPSpacingTDD                IPSpacingTDD,
    iPStart                     IPStart,
    iPSub                       IPSub,
    burstModeParameters         BurstModeParameters     OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { IPDL-TDD-ParametersLCR-ExtIEs} }   OPTIONAL,
    ...
}

-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.

IPDL-TDD-ParametersLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPLength ::= ENUMERATED {
    ipl5,
    ipl10,
    ...
}

IPMulticastAddress  ::= OCTET STRING (SIZE (4..16))

IPOffset ::= INTEGER (0..9)

IP-P-CCPCH ::= ENUMERATED {
    switchOff-1-Frame,
    switchOff-2-Frames
}

IPSlot ::= INTEGER (0..14)

IPSpacingFDD ::= ENUMERATED {
    ipsF5,
    ipsF7,
```

```
    ipsF10,
    ipsF15,
    ipsF20,
    ipsF30,
    ipsF40,
    ipsF50,
    ...
}

IPSpacingTDD ::= ENUMERATED {
    ipsT30,
    ipsT40,
    ipsT50,
    ipsT70,
    ipsT100,
    ...
}

IPStart ::= INTEGER (0..4095)

IPSub ::= ENUMERATED {
    first,
    second,
    both
}

IdleIntervalInformation ::= SEQUENCE {
    idleIntervalInfo-k                          INTEGER(2..3),
    idleIntervalInfo-offset                     INTEGER(0..7),
    ...
}

-- J
-- K
-- L

LAC                 ::= OCTET STRING (SIZE (2)) --(EXCEPT ('0000'H|'FFFE'H))

LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

List-Of-PLMNs ::= SEQUENCE (SIZE (1..maxNrOfBroadcastPLMNs)) OF PLMN-Identity

L3-Information              ::= BIT STRING

Load-Value-IncrDecrThres ::= INTEGER(0..100)

Load-Value ::= INTEGER(0..100)

LoadValue ::= SEQUENCE {
        uplinkLoadValue     INTEGER(0..100),
        downlinkLoadValue   INTEGER(0..100)
```

```
}

LCRTDD-Uplink-Physical-Channel-Capability ::= SEQUENCE {
    maxTimeslotsPerSubFrame             INTEGER(1..6),
    maxPhysChPerTimeslot                ENUMERATED{ts1, ts2, ts3, ts4,...},
    iE-Extensions                       ProtocolExtensionContainer { { LCRTDD-Uplink-Physical-Channel-Capability-ExtIEs} } OPTIONAL,
    ...
}

LCRTDD-Uplink-Physical-Channel-Capability-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- M

MaxNrOfUL-DPCHs             ::= INTEGER (1..6)

MAC-c-sh-SDU-Length         ::= INTEGER (1..5000)

MAC-c-sh-SDU-LengthList ::= SEQUENCE(SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length

MAC-DTX-Cycle-2ms ::= ENUMERATED {v1, v4, v5, v8, v10, v16, v20}

MAC-DTX-Cycle-10ms ::= ENUMERATED {v5, v10, v20}

MAC-ehs-Reset-Timer ::= ENUMERATED {v1, v2, v3, v4,...}

MAC-Inactivity-Threshold ::= ENUMERATED {v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity}
    -- Unit subframe

MACdPDU-Size ::= INTEGER (1..5000,...)
    -- In case of E-DCH value 8 and values not multiple of 8 shall not be used

MAC-PDU-SizeExtended ::= INTEGER (1..1504,...,1505)
    -- In case of E-DCH value 1 shall not be used

MACdPDU-Size-IndexList ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem

MACdPDU-Size-IndexItem ::= SEQUENCE {
    sID                                 SID,
    mACdPDU-Size                        MACdPDU-Size,
    iE-Extensions                       ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs } }        OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACdPDU-Size-IndexList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify

MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
    sID                                 SID,
```

```
    mACdPDU-Size                        MACdPDU-Size,
    iE-Extensions                       ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-to-Modify-ExtIEs } }       OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACes-Guaranteed-Bitrate ::= INTEGER (0..16777215,...,16777216..256000000)

MACes-Maximum-Bitrate-LCR ::= INTEGER (0..256000000,...)

MACeReset-Indicator ::= ENUMERATED {mACeReset}

MAChsGuaranteedBitRate ::= INTEGER (0..16777215,...,16777216..256000000)

MAChsReorderingBufferSize-for-RLC-UM ::= INTEGER (0..300,...)
-- Unit kBytes

MAC-hsWindowSize        ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,... , v64, v128}

MAChsResetScheme ::= ENUMERATED {
    always,
    interNodeB-change
}

MaximumAllowedULTxPower     ::= INTEGER (-50..33)

Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(1..maxNrOfBits-MACe-PDU-non-scheduled)

MaxNrDLPhysicalchannels     ::= INTEGER (1..224)
-- 1.28Mcps TDD 97 - 224 are unused

MaxNrDLPhysicalchannels768  ::= INTEGER (1..448)

MaxNrDLPhysicalchannelsTS   ::= INTEGER (1..16)

MaxNrDLPhysicalchannelsTS768    ::= INTEGER (1..32)

MaxNr-Retransmissions-EDCH  ::= INTEGER (0..15)

MaxNrTimeslots              ::= INTEGER (1..14)
-- 1.28Mcps values 7-14 are unused


MaxNrULPhysicalchannels     ::= INTEGER (1..2)

Max-Set-E-DPDCHs ::= ENUMERATED {
    vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,
    ...,
    v2xM2plus2xM4
    }
-- Values releated to [9]
```

```
Max-UE-DTX-Cycle ::= ENUMERATED {
    v5, v10, v20, v40, v64, v80, v128, v160,
    ...
    }

MBMS-Bearer-Service-Full-Address ::= SEQUENCE {
    accessPointName                         AccessPointName,
    iPMulticastAddress                      IPMulticastAddress,
    iE-Extensions                       ProtocolExtensionContainer { { MBMS-Bearer-Service-Full-Address-ExtIEs } }       OPTIONAL,
    ...
}

MBMS-Bearer-Service-Full-Address-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-Service-List    ::= SEQUENCE (SIZE (1..maxNrOfMBMSServices)) OF TMGI

MBMS-Bearer-ServiceItemFDD  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemFDD-ExtIEs} } OPTIONAL,
    ...
}


MBMS-Bearer-ServiceItemFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-ServiceItemFDD-PFL  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode        TransmissionMode    OPTIONAL,
    preferredFrequencyLayer     UARFCN          OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemFDD-PFL-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItemFDD-PFL-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-ServiceItemTDD  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemTDD-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItemTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
MBMS-Bearer-ServiceItemTDD-PFL  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode    OPTIONAL,
    preferredFrequencyLayer     UARFCN          OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemTDD-PFL-ExtIEs} } OPTIONAL,
    ...
}
MBMS-Bearer-ServiceItemTDD-PFL-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMSChannelTypeInfo ::= SEQUENCE {
    tMGI                TMGI,
    pTM-Cell-List       PTMCellList     OPTIONAL,
    pTP-Cell-List       PTPCellList     OPTIONAL,
    not-Provided-Cell-List  NotProvidedCellList OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { MBMSChannelTypeInfo-ExtIEs} } OPTIONAL,
    ...
}

MBMSChannelTypeInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMSChannelTypeCellList ::= SEQUENCE {
    c-ID                                C-ID,
    affectedUEInformationForMBMS        AffectedUEInformationForMBMS    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { MBMSChannelTypeCellList-ExtIEs} } OPTIONAL,
    ...
}

MBMSChannelTypeCellList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMSPreferredFreqLayerInfo  ::= SEQUENCE {
    tMGI                            TMGI,
    preferredFrequencyLayerInfo     PreferredFrequencyLayerInfo,
    iE-Extensions                   ProtocolExtensionContainer { { MBMSPreferredFreqLayerInfo-ExtIEs} } OPTIONAL,
    ...
}
MBMSPreferredFreqLayerInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Neighbouring-Cell-Information  ::= SEQUENCE {
    mBMS-ConcatenatedServiceList        MBMS-ConcatenatedServiceList,
    l3-Information-1                    L3-Information  OPTIONAL,
-- This IE contains MBMS COMMON P-T-M RB INFORMATION defined in [16]
    l3-Information-2                    L3-Information  OPTIONAL,
-- This IE contains MBMS CURRENT CELL P-T-M RB INFORMATION defined in [16]
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Neighbouring-Cell-Information-ExtIEs} } OPTIONAL,
    ...
```

```
}

MBMS-Neighbouring-Cell-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
MBMS-ConcatenatedServiceList    ::= SEQUENCE (SIZE (1..maxlengthMBMSconcatservlists)) OF TMGI


MBMS-RLC-Sequence-Number-Information    ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMS-RLC-Sequence-Number-Information-List

MBMS-RLC-Sequence-Number-Information-List   ::= SEQUENCE {
    c-ID                            C-ID,
    mBMS-Bearer-Service-List-RLC                            MBMS-Bearer-Service-List-RLC,
    iE-Extensions                   ProtocolExtensionContainer  { { MBMS-RLC-Sequence-Number-Information-List-ExtIEs} }     OPTIONAL,
    ...
}

MBMS-RLC-Sequence-Number-Information-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-Service-List-RLC::= SEQUENCE (SIZE (1..maxNrOfMBMSServices)) OF MBMS-Bearer-Service-List-RLCinfo

MBMS-Bearer-Service-List-RLCinfo    ::= SEQUENCE {
    tmgi                            TMGI,
    time-Stamp                      Time-Stamp,
    iE-Extensions                   ProtocolExtensionContainer  { { MBMS-Bearer-Service-List-RLCinfo-ExtIEs} }     OPTIONAL,
    ...
}

MBMS-Bearer-Service-List-RLCinfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBSFN-Cluster-Identity      ::= INTEGER (0..65535)

MCCH-Message-List   ::= SEQUENCE (SIZE (1.. maxNrOfMCCHMessages)) OF L3-Information

MCCH-Configuration-Info ::= SEQUENCE {
    secondaryCCPCHSystemInformationMBMS         Secondary-CCPCH-System-Information-MBMS,
    ie-Extensions                               ProtocolExtensionContainer { {MCCH-Configuration-Info-ExtIEs } }    OPTIONAL,
    ...
}

MCCH-Configuration-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-System-Information-MBMS             ::= BIT STRING

MBSFN-Scheduling-Transmission-Time-Interval-Info-List   ::=     SEQUENCE (SIZE (1.. maxNrOfMBMSL3)) OF MBSFN-Scheduling-Transmission-Time-Interval-
Item
```

```
MBSFN-Scheduling-Transmission-Time-Interval-Item    ::= SEQUENCE {
    tMGI                            TMGI,
    mbsfnSchedulingTransmissionTimeInterval     MbsfnSchedulingTransmissionTimeInterval,
    ie-Extensions                               ProtocolExtensionContainer { { MBSFN-Scheduling-Transmission-Time-Interval-Item-ExtIEs } }
    OPTIONAL,
    ...
}

MBSFN-Scheduling-Transmission-Time-Interval-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}



MbsfnSchedulingTransmissionTimeInterval ::= ENUMERATED {tti4, tti8, tti16, tti32, tti64, tti128, tti256}

MeasurementFilterCoefficient ::=  ENUMERATED{k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...}
-- Measurement Filter Coefficient to be used for measurement

MeasurementID               ::= INTEGER (0..1048575)

Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5

MinimumSpreadingFactor      ::= INTEGER (1..16)

MinimumSpreadingFactor768       ::= INTEGER (1..32)

MultipleURAsIndicator ::= ENUMERATED {
    multiple-URAs-exist,
    single-URA-exists
}

MaxAdjustmentStep           ::= INTEGER(1..10)
-- Unit Slot

MeasurementChangeTime       ::= INTEGER (1..6000,...)
-- The MeasurementChangeTime  gives the MeasurementChangeTime
-- in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10 ms


MeasurementHysteresisTime       ::= INTEGER (1..6000,...)
-- The MeasurementHysteresisTime  gives the
-- MeasurementHysteresisTime in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10ms

MeasurementIncreaseDecreaseThreshold        ::= CHOICE {
    sir                             SIR-Value-IncrDecrThres,
    sir-error                       SIR-Error-Value-IncrDecrThres,
    transmitted-code-power          Transmitted-Code-Power-Value-IncrDecrThres,
```

```
    rscp                            RSCP-Value-IncrDecrThres,
    round-trip-time                 Round-Trip-Time-IncrDecrThres,
    ...,
    extension-MeasurementIncreaseDecreaseThreshold      Extension-MeasurementIncreaseDecreaseThreshold
}

Extension-MeasurementIncreaseDecreaseThreshold  ::= ProtocolIE-Single-Container {{ Extension-MeasurementIncreaseDecreaseThresholdIE }}

Extension-MeasurementIncreaseDecreaseThresholdIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Load-Value-IncrDecrThres    CRITICALITY reject  TYPE Load-Value-IncrDecrThres   PRESENCE mandatory }|
    { ID id-Transmitted-Carrier-Power-Value-IncrDecrThres   CRITICALITY reject  TYPE Transmitted-Carrier-Power-Value-IncrDecrThres   PRESENCE
mandatory }|
    { ID id-Received-Total-Wideband-Power-Value-IncrDecrThres   CRITICALITY reject  TYPE Received-Total-Wideband-Power-Value-IncrDecrThres
    PRESENCE mandatory }|
    { ID id-UL-Timeslot-ISCP-Value-IncrDecrThres    CRITICALITY reject  TYPE UL-Timeslot-ISCP-Value-IncrDecrThres  PRESENCE mandatory }|
    { ID id-RT-Load-Value-IncrDecrThres CRITICALITY reject  TYPE RT-Load-Value-IncrDecrThres    PRESENCE mandatory }|
    { ID id-NRT-Load-Information-Value-IncrDecrThres    CRITICALITY reject  TYPE NRT-Load-Information-Value-IncrDecrThres PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue      CRITICALITY reject  TYPE    UpPTSInterferenceValue      PRESENCE mandatory }
}

MeasurementRecoveryBehavior ::= NULL

MeasurementRecoveryReportingIndicator ::= NULL

MeasurementRecoverySupportIndicator ::= NULL

MeasurementThreshold            ::= CHOICE {
    sir                             SIR-Value,
    sir-error                       SIR-Error-Value,
    transmitted-code-power          Transmitted-Code-Power-Value,
    rscp                            RSCP-Value,
    rx-timing-deviation             Rx-Timing-Deviation-Value,
    round-trip-time                 Round-Trip-Time-Value,
    ...,
    extension-MeasurementThreshold  Extension-MeasurementThreshold
}

Extension-MeasurementThreshold  ::= ProtocolIE-Single-Container {{ Extension-MeasurementThresholdIE }}

Extension-MeasurementThresholdIE RNSAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementThresholdInformation    CRITICALITY reject  TYPE TUTRANGPSMeasurementThresholdInformation   PRESENCE mandatory }|
    { ID id-SFNSFNMeasurementThresholdInformation       CRITICALITY reject  TYPE SFNSFNMeasurementThresholdInformation      PRESENCE mandatory }|
    { ID id-Load-Value                                  CRITICALITY reject  TYPE Load-Value                                 PRESENCE mandatory }|
    { ID id-Transmitted-Carrier-Power-Value             CRITICALITY reject  TYPE Transmitted-Carrier-Power-Value            PRESENCE mandatory }|
    { ID id-Received-Total-Wideband-Power-Value         CRITICALITY reject  TYPE Received-Total-Wideband-Power-Value        PRESENCE mandatory }|
    { ID id-UL-Timeslot-ISCP-Value                      CRITICALITY reject  TYPE UL-Timeslot-ISCP-Value                     PRESENCE mandatory }|
    { ID id-RT-Load-Value                               CRITICALITY reject  TYPE RT-Load-Value                              PRESENCE mandatory }|
    { ID id-NRT-Load-Information-Value                  CRITICALITY reject  TYPE NRT-Load-Information-Value                 PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-LCR               CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-LCR              PRESENCE mandatory}|
    { ID id-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Measurement-Value PRESENCE mandatory}|
    { ID id-UpPTSInterferenceValue                      CRITICALITY reject  TYPE UpPTSInterferenceValue                     PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-768               CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-768              PRESENCE mandatory}|
    { ID id-Rx-Timing-Deviation-Value-ext               CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-ext              PRESENCE mandatory}|
    { ID id-Extended-Round-Trip-Time-Value              CRITICALITY reject  TYPE Extended-Round-Trip-Time-Value             PRESENCE mandatory }|
```

```
    { ID id-TUTRANGANSSMeasurementThresholdInformation  CRITICALITY reject  TYPE TUTRANGANSSMeasurementThresholdInformation  PRESENCE mandatory }
}

MidambleConfigurationBurstType1And3 ::=     ENUMERATED {v4, v8, v16}

MidambleConfigurationBurstType2 ::=     ENUMERATED {v3, v6}

MidambleConfigurationLCR ::=    ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}

MidambleShiftAndBurstType ::=       CHOICE {
    type1                               SEQUENCE {
        midambleConfigurationBurstType1And3     MidambleConfigurationBurstType1And3,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    type2                               SEQUENCE {
        midambleConfigurationBurstType2     MidambleConfigurationBurstType2,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftShort,
            ...
        },
        ...
    },
    type3                               SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode          CHOICE {
            defaultMidamble                     NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    ...
}

MidambleShiftLong ::=               INTEGER (0..15)

MidambleShiftShort ::=              INTEGER (0..5)

MidambleShiftLCR ::= SEQUENCE {
    midambleAllocationMode      MidambleAllocationMode,
    midambleShift               MidambleShiftLong       OPTIONAL,
        -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
    midambleConfigurationLCR    MidambleConfigurationLCR,
    iE-Extensions               ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }        OPTIONAL,
    ...
    }
```

```
MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
    uESpecificMidamble,
    ...
    }

MidambleShiftLCR-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MidambleShiftAndBurstType768 ::=        CHOICE {
    type1                               SEQUENCE {
        midambleConfigurationBurstType1And3     MidambleConfigurationBurstType1And3,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    type2                               SEQUENCE {
        midambleConfigurationBurstType2-768     MidambleConfigurationBurstType2-768,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftShort768,
            ...
        },
        ...
    },
    type3                               SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode          CHOICE {
            defaultMidamble                     NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    ...
}

MidambleConfigurationBurstType2-768 ::=     ENUMERATED {v4, v8}

MidambleShiftShort768 ::=               INTEGER (0..7)

MIMO-ActivationIndicator    ::= NULL

MIMO-InformationResponse ::= SEQUENCE {
    mIMO-PilotConfiguration                 MIMO-PilotConfiguration,
    mIMO-N-M-Ratio                          MIMO-N-M-Ratio,
```

```
    iE-Extensions                               ProtocolExtensionContainer { { MIMO-InformationResponse-ExtIEs } }       OPTIONAL,
    ...
}

MIMO-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


MIMO-Mode-Indicator ::= ENUMERATED {
    activate,
    deactivate
}

MIMO-N-M-Ratio ::= ENUMERATED {v1-2, v2-3, v3-4, v4-5, v5-6, v6-7, v7-8, v8-9, v9-10, v1-1,...}

MIMO-PilotConfiguration ::= CHOICE {
    primary-and-secondary-CPICH             MIMO-S-CPICH-Channelisation-Code,
    normal-and-diversity-primary-CPICH      NULL,
    ...
}

MIMO-S-CPICH-Channelisation-Code ::= INTEGER (0..255)

MinUL-ChannelisationCodeLength      ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256
}

MinimumReducedE-DPDCH-GainFactor ::= ENUMERATED {m8-15, m11-15, m15-15, m21-15, m30-15, m42-15, m60-15, m84-15,...}


ModifyPriorityQueue ::= CHOICE {
    addPriorityQueue            PriorityQueue-InfoItem-to-Add,
    modifyPriorityQueue         PriorityQueue-InfoItem-to-Modify,
    deletePriorityQueue         PriorityQueue-Id,
    ...
}

Modulation ::= ENUMERATED {
    qPSK,
    eightPSK,
    ...
}

MulticellEDCH-Information       ::= ProtocolIE-Single-Container { {MulticellEDCH-InformationItem} }

MulticellEDCH-InformationItem RNSAP-PROTOCOL-IES ::= {
    { ID id-MulticellEDCH-Information   CRITICALITY ignore  TYPE MulticellEDCH-InformationItemIEs    PRESENCE mandatory }
```

```
}

MulticellEDCH-InformationItemIEs::= SEQUENCE {
    dL-PowerBalancing-Information           DL-PowerBalancing-Information       OPTIONAL,
    minimumReducedE-DPDCH-GainFactor        MinimumReducedE-DPDCH-GainFactor        OPTIONAL,
    secondary-UL-Frequency-Activation-State         Secondary-UL-Frequency-Activation-State     OPTIONAL,
    f-DPCH-SlotFormat           F-DPCH-SlotFormat       OPTIONAL,
    common-DL-ReferencePowerInformation         DL-Power        OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { MulticellEDCH-InformationItemIEs-ExtIEs } } OPTIONAL,
    ...

}

MulticellEDCH-InformationItemIEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MulticellEDCH-RL-SpecificInformation        ::= ProtocolIE-Single-Container { {MulticellEDCH-RL-SpecificInformationItem} }

MulticellEDCH-RL-SpecificInformationItem RNSAP-PROTOCOL-IES ::= {
    { ID id-MulticellEDCH-RL-SpecificInformation    CRITICALITY ignore  TYPE MulticellEDCH-RL-SpecificInformationItemIEs    PRESENCE mandatory   }
}

MulticellEDCH-RL-SpecificInformationItemIEs::= SEQUENCE {
    extendedPropagationDelay        ExtendedPropagationDelay            OPTIONAL,
    enhanced-PrimaryCPICH-EcNo      Enhanced-PrimaryCPICH-EcNo          OPTIONAL,
    dl-Reference-Power          DL-Power            OPTIONAL,
    phase-Reference-Update-Indicator        Phase-Reference-Update-Indicator            OPTIONAL,
    additional-e-DCH-DL-Control-Channel-Grant       NULL                                OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { MulticellEDCH-RL-SpecificInformationItemIEs-ExtIEs } } OPTIONAL,
    ...

}

MulticellEDCH-RL-SpecificInformationItemIEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-PLMN-List ::= SEQUENCE {
    pLMN-Identity       PLMN-Identity,
    list-Of-PLMNs       List-Of-PLMNs                                       OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { Multiple-PLMN-List-ExtIEs} } OPTIONAL,
    ...

}

Multiple-PLMN-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible
}
```

```
MAChs-ResetIndicator ::= ENUMERATED{
    mAChs-NotReset
}

MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR ::= SEQUENCE (SIZE (1.. maxHSDPAFrequency-1)) OF MultipleFreq-HSPDSCH-InformationItem-
ResponseTDDLCR
--Includes the 2nd through the max number of frequency repetitions

MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR ::= SEQUENCE{
    hSSCCH-TDD-Specific-InfoList-Response-LCR       HSSCCH-TDD-Specific-InfoList-Response-LCR   OPTIONAL,
    hARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                     OPTIONAL,
    uARFCN                                          UARFCN,
    -- This is the UARFCN for the second and beyond Frequency repetition.
    iE-Extensions                                   ProtocolExtensionContainer { { MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR-ExtIEs } }
        OPTIONAL,
    ...
}

MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

MIMO-SFMode-For-HSPDSCHDualStream ::= ENUMERATED {
    sF1,
    sF1SF16
}

-- N

NACC-Related-Data ::= SEQUENCE {
    gERAN-SI-Type               GERAN-SI-Type,
    iE-Extensions               ProtocolExtensionContainer { {NACC-Related-Data-ExtIEs} }       OPTIONAL,
    ...
    }

NACC-Related-Data-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Nack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1

NCC ::= BIT STRING (SIZE (3))

Neighbouring-UMTS-CellInformation ::= SEQUENCE (SIZE (1..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-UMTS-
CellInformationItemIE }}

Neighbouring-UMTS-CellInformationItemIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-UMTS-CellInformationItem   CRITICALITY ignore  TYPE    Neighbouring-UMTS-CellInformationItem  PRESENCE mandatory }
}

Neighbouring-UMTS-CellInformationItem ::= SEQUENCE {
```

```
    rNC-ID                                  RNC-ID,
    cN-PS-DomainIdentifier                  CN-PS-DomainIdentifier      OPTIONAL,
    cN-CS-DomainIdentifier                  CN-CS-DomainIdentifier      OPTIONAL,
    neighbouring-FDD-CellInformation        Neighbouring-FDD-CellInformation    OPTIONAL,
    neighbouring-TDD-CellInformation        Neighbouring-TDD-CellInformation    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {Neighbouring-UMTS-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-UMTS-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-neighbouring-LCR-TDD-CellInformation            CRITICALITY  ignore     EXTENSION   Neighbouring-LCR-TDD-CellInformation       PRESENCE
optional }|
    { ID id-Extended-RNC-ID                     CRITICALITY reject  EXTENSION Extended-RNC-ID
    PRESENCE optional },
    ...
}

Neighbouring-FDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Neighbouring-FDD-CellInformationItem

Neighbouring-FDD-CellInformationItem ::= SEQUENCE {
    c-ID                                C-ID,
    uARFCNforNu                         UARFCN,
    uARFCNforNd                         UARFCN,
    frameOffset                         FrameOffset         OPTIONAL,
    primaryScramblingCode               PrimaryScramblingCode,
    primaryCPICH-Power                  PrimaryCPICH-Power      OPTIONAL,
    cellIndividualOffset                CellIndividualOffset    OPTIONAL,
    txDiversityIndicator                TxDiversityIndicator,
    sTTD-SupportIndicator               STTD-SupportIndicator   OPTIONAL,
    closedLoopMode1-SupportIndicator    ClosedLoopMode1-SupportIndicator    OPTIONAL,
    not-used-closedLoopMode2-SupportIndicator   NULL    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Neighbouring-FDD-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-FDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RestrictionStateIndicator               CRITICALITY ignore          EXTENSION RestrictionStateIndicator   PRESENCE optional }|
    { ID id-DPC-Mode-Change-SupportIndicator    CRITICALITY ignore      EXTENSION   DPC-Mode-Change-SupportIndicator     PRESENCE optional }|
    { ID id-CoverageIndicator               CRITICALITY ignore          EXTENSION CoverageIndicator             PRESENCE optional }|
    { ID id-AntennaColocationIndicator      CRITICALITY ignore          EXTENSION AntennaColocationIndicator    PRESENCE optional }|
    { ID id-HCS-Prio                        CRITICALITY ignore          EXTENSION HCS-Prio                      PRESENCE optional }|
    { ID id-CellCapabilityContainer-FDD     CRITICALITY ignore          EXTENSION   CellCapabilityContainer-FDD         PRESENCE optional }|
    { ID id-SNA-Information                 CRITICALITY ignore          EXTENSION SNA-Information       PRESENCE optional }|
    { ID id-FrequencyBandIndicator          CRITICALITY ignore          EXTENSION FrequencyBandIndicator        PRESENCE optional }|
    { ID id-Max-UE-DTX-Cycle                CRITICALITY ignore          EXTENSION  Max-UE-DTX-Cycle             PRESENCE conditional }|
    -- This IE shall be present if the the fifteenth bit Continuous Packet Connectivity DTX-DRX Support Indicator in the Cell Capability Container
FDD IE is set to the value "1".
    { ID id-Multiple-PLMN-List              CRITICALITY ignore          EXTENSION Multiple-PLMN-List            PRESENCE optional }|
    { ID id-Secondary-Serving-Cell-List     CRITICALITY ignore          EXTENSION Secondary-Serving-Cell-List   PRESENCE optional }|
    { ID id-Dual-Band-Secondary-Serving-Cell-List   CRITICALITY ignore   EXTENSION Secondary-Serving-Cell-List   PRESENCE optional }|
-- This IE shall be present if the twenty-eighth bit Dual Band Support Indicator in the Cell Capability Container FDD IE is set to the value "1".
    { ID id-CellCapabilityContainerExtension-FDD    CRITICALITY ignore  EXTENSION CellCapabilityContainerExtension-FDD   PRESENCE optional }|
    { ID id-CellListValidityIndicator       CRITICALITY ignore          EXTENSION CellListValidityIndicator     PRESENCE optional },
    ...
```

```
}

NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID                               UC-ID,
    uARFCN                              UARFCN,
    primaryScramblingCode               PrimaryScramblingCode,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringFDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Neighbouring-GSM-CellInformation ::= ProtocolIE-Single-Container {{ Neighbouring-GSM-CellInformationIE }}

Neighbouring-GSM-CellInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-GSM-CellInformation    CRITICALITY ignore  TYPE    Neighbouring-GSM-CellInformationIEs  PRESENCE mandatory }
}

Neighbouring-GSM-CellInformationIEs ::= SEQUENCE ( SIZE (1..maxNrOfGSMNeighboursPerRNC,...)) OF Neighbouring-GSM-CellInformationItem

Neighbouring-GSM-CellInformationItem ::= SEQUENCE {
    cGI                                 CGI,
    cellIndividualOffset                CellIndividualOffset    OPTIONAL,
    bSIC                                BSIC,
    band-Indicator                      Band-Indicator,
    bCCH-ARFCN                          BCCH-ARFCN,
    iE-Extensions                       ProtocolExtensionContainer { { Neighbouring-GSM-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-GSM-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CoverageIndicator               CRITICALITY ignore          EXTENSION CoverageIndicator                 PRESENCE optional } |
    { ID id-AntennaColocationIndicator      CRITICALITY ignore          EXTENSION AntennaColocationIndicator        PRESENCE optional } |
    { ID id-HCS-Prio                        CRITICALITY ignore          EXTENSION HCS-Prio                          PRESENCE optional } |
    { ID id-SNA-Information                 CRITICALITY ignore          EXTENSION SNA-Information                   PRESENCE optional } |
    { ID id-GERAN-Cell-Capability           CRITICALITY ignore          EXTENSION GERAN-Cell-Capability             PRESENCE optional } |
    { ID id-GERAN-Classmark                 CRITICALITY ignore          EXTENSION GERAN-Classmark                   PRESENCE optional } |
    { ID id-ExtendedGSMCellIndividualOffset CRITICALITY ignore          EXTENSION ExtendedGSMCellIndividualOffset   PRESENCE optional },
    ...
}

Neighbouring-TDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Neighbouring-TDD-CellInformationItem

Neighbouring-TDD-CellInformationItem ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNt                     UARFCN,
    frameOffset                     FrameOffset         OPTIONAL,
    cellParameterID                 CellParameterID,
    syncCase                        SyncCase,
    timeSlot                        TimeSlot            OPTIONAL
    -- This IE shall be present if Sync Case = Case1 -- ,
    sCH-TimeSlot                    SCH-TimeSlot            OPTIONAL
```

```
    -- This IE shall be present if Sync Case = Case2 -- ,
    sCTD-Indicator          SCTD-Indicator,
    cellIndividualOffset            CellIndividualOffset    OPTIONAL,
    dPCHConstantValue               DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                    PCCPCH-Power            OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Neighbouring-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RestrictionStateIndicator               CRITICALITY ignore          EXTENSION RestrictionStateIndicator   PRESENCE optional }|
    { ID id-CoverageIndicator               CRITICALITY ignore          EXTENSION CoverageIndicator             PRESENCE optional }|
    { ID id-AntennaColocationIndicator      CRITICALITY ignore          EXTENSION AntennaColocationIndicator    PRESENCE optional }|
    { ID id-HCS-Prio                        CRITICALITY ignore          EXTENSION HCS-Prio                      PRESENCE optional }|
    { ID id-CellCapabilityContainer-TDD             CRITICALITY ignore  EXTENSION   CellCapabilityContainer-TDD       PRESENCE optional }|
    { ID id-SNA-Information                         CRITICALITY ignore  EXTENSION SNA-Information               PRESENCE optional }|
    { ID id-CellCapabilityContainer-TDD768              CRITICALITY ignore  EXTENSION   CellCapabilityContainer-TDD768      PRESENCE optional }|
    { ID id-Multiple-PLMN-List              CRITICALITY ignore          EXTENSION Multiple-PLMN-List            PRESENCE optional },
    ...
}

NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID                               UC-ID,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
    timeSlot                            TimeSlot                    OPTIONAL,
    midambleShiftAndBurstType           MidambleShiftAndBurstType   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
    uC-ID                               UC-ID,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
    timeSlotLCR                         TimeSlotLCR                 OPTIONAL,
    midambleShiftLCR                    MidambleShiftLCR            OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformation768 ::= SEQUENCE {
    uC-ID                               UC-ID,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
```

```
    timeSlot                            TimeSlot                    OPTIONAL,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem768-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Neighbouring-LCR-TDD-CellInformation ::= SEQUENCE (SIZE (1.. maxNrOfLCRTDDNeighboursPerRNC,...)) OF Neighbouring-LCR-TDD-CellInformationItem

Neighbouring-LCR-TDD-CellInformationItem ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNt                     UARFCN,
    frameOffset                     FrameOffset         OPTIONAL,
    cellParameterID                 CellParameterID,
    sCTD-Indicator          SCTD-Indicator,
    cellIndividualOffset            CellIndividualOffset    OPTIONAL,
    dPCHConstantValue               DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                    PCCPCH-Power            OPTIONAL,
    restrictionStateIndicator       RestrictionStateIndicator       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Neighbouring-LCR-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-LCR-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CoverageIndicator               CRITICALITY ignore      EXTENSION   CoverageIndicator                   PRESENCE optional }|
    { ID id-AntennaColocationIndicator      CRITICALITY ignore      EXTENSION   AntennaColocationIndicator          PRESENCE optional }|
    { ID id-HCS-Prio                        CRITICALITY ignore      EXTENSION   HCS-Prio                            PRESENCE optional }|
    { ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore      EXTENSION   CellCapabilityContainer-TDD-LCR     PRESENCE optional }|
    { ID id-SNA-Information                 CRITICALITY ignore      EXTENSION   SNA-Information                    PRESENCE optional }|
    { ID id-Multiple-PLMN-List              CRITICALITY ignore      EXTENSION   Multiple-PLMN-List                 PRESENCE optional },
    ...
}


Neighbouring-E-UTRA-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfEUTRANeighboursPerRNC,...)) OF Neighbouring-E-UTRA-CellInformationItem

Neighbouring-E-UTRA-CellInformationItem ::= SEQUENCE {
    eCGI                            ECGI,
    eARFCN-Information              EARFCN-Information,
    iE-Extensions                   ProtocolExtensionContainer { { Neighbouring-E-UTRA-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-E-UTRA-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCellSpecificTxDiversity ::= ENUMERATED {
    txDiversity,
    ...
}
```

```
NotProvidedCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList

NrOfDLchannelisationcodes   ::= INTEGER (1..8)

NrOfTransportBlocks         ::= INTEGER (0..512)

NRT-Load-Information-Value-IncrDecrThres ::= INTEGER(0..3)

NRT-Load-Information-Value ::= INTEGER(0..3)

NRTLoadInformationValue ::= SEQUENCE {
        uplinkNRTLoadInformationValue       INTEGER(0..3),
        downlinkNRTLoadInformationValue     INTEGER(0..3)
}

N-E-UCCH ::= INTEGER (1..12)

N-E-UCCH-LCR ::= INTEGER (1..8)

Number-Of-Supported-Carriers  ::= ENUMERATED {
    one-one-carrier,
    one-three-carrier,
    three-three-carrier,
    one-six-carrier,
    three-six-carrier,
    six-six-carrier,
    ...
}

NumHS-SCCH-Codes ::= INTEGER (1..maxNrOfHSSCCHCodes)

NoOfTargetCellHS-SCCH-Order::= INTEGER (1..30)

Non-Serving-RL-Preconfig-Setup  ::= SEQUENCE {
    new-non-serving-RL-selection    New-non-serving-RL-setup-selection,
    iE-Extensions           ProtocolExtensionContainer { {Non-Serving-RL-Preconfig-Setup-ExtIEs} } OPTIONAL,
    ...
}

Non-Serving-RL-Preconfig-Setup-ExtIEs   RNSAP-PROTOCOL-EXTENSION::= {
    {ID id-Additional-E-DCH-Non-Serving-RL-Preconfiguration-Setup   CRITICALITY ignore  EXTENSION Additional-E-DCH-Non-Serving-RL-Preconfiguration-
Setup PRESENCE optional },
...
}

Additional-E-DCH-Non-Serving-RL-Preconfiguration-Setup  ::= NULL

New-non-serving-RL-setup-selection  ::= CHOICE {
    new-Serving-RL-in-DRNS                  NULL,
    new-Serving-RL-Not-in-DRNS              NULL,
    new-Serving-RL-in-or-Not-in-DRNS        NULL,
    ...
}
```

```
Non-Serving-RL-Preconfig-Info   ::= SEQUENCE {
    new-non-serving-RL-E-DCH-FDD-DL-ControlChannelInformation-A     EDCH-FDD-DL-ControlChannelInformation OPTIONAL,
    new-non-serving-RL-E-DCH-FDD-DL-ControlChannelInformation-B     EDCH-FDD-DL-ControlChannelInformation OPTIONAL,
    new-non-serving-RL-E-DCH-FDD-DL-ControlChannelInformation-C     EDCH-FDD-DL-ControlChannelInformation OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {Non-Serving-RL-Preconfig-Info-ExtIEs} } OPTIONAL,
    ...
}

Non-Serving-RL-Preconfig-Info-ExtIEs    RNSAP-PROTOCOL-EXTENSION    ::= {
    {ID id-Additional-E-DCH-New-non-serving-RL-E-DCH-FDD-DL-Control-Channel-InfoList    CRITICALITY ignore EXTENSION Additional-E-DCH-New-non-
serving-RL-E-DCH-FDD-DL-Control-Channel-InfoList PRESENCE optional},
...
}

Additional-E-DCH-New-non-serving-RL-E-DCH-FDD-DL-Control-Channel-InfoList   ::= SEQUENCE(SIZE(1.. maxNrOfEDCH-1)) OF SEQUENCE {
    new-non-serving-RL-E-DCH-FDD-DL-Control-Channel-Information-A   EDCH-FDD-DL-ControlChannelInformation OPTIONAL,
    new-non-serving-RL-E-DCH-FDD-DL-Control-Channel-Information-B   EDCH-FDD-DL-ControlChannelInformation OPTIONAL,
    new-non-serving-RL-E-DCH-FDD-DL-Control-Channel-Information-C   EDCH-FDD-DL-ControlChannelInformation OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { Additional-E-DCH-New-non-serving-RL-E-DCH-FDD-DL-Control-Channel-InfoList-ExtIEs} }
OPTIONAL,
    ...
}

Additional-E-DCH-New-non-serving-RL-E-DCH-FDD-DL-Control-Channel-InfoList-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
...
}

NeedforIdleInterval ::= ENUMERATED {
    true,
    false
}


-- O

OnModification ::= SEQUENCE {
    measurementThreshold    MeasurementThreshold,
    iE-Extensions           ProtocolExtensionContainer { {OnModification-ExtIEs} } OPTIONAL,
    ...
}

OnModification-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

OnModificationInformation ::= SEQUENCE {
    informationThreshold    InformationThreshold    OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {OnModificationInformation-ExtIEs} } OPTIONAL,
    ...
}
```

```
OnModificationInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Out-of-Sychronization-Window ::= ENUMERATED {
ms40,
ms80,
ms160,
ms320,
ms640,
...
}

-- P

PagingCause ::= ENUMERATED {
    terminating-conversational-call,
    terminating-streaming-call,
    terminating-interactive-call,
    terminating-background-call,
    terminating-low-priority-signalling,
    ...,
    terminating-high-priority-signalling,
    terminating-cause-unknown
}
-- See in [16]

PagingRecordType ::= ENUMERATED {
    imsi-gsm-map,
    tmsi-gsm-map,
    p-tmsi-gsm-map,
    imsi-ds-41,
    tmsi-ds-41,
    ...
}
-- See in [16]

PartialReportingIndicator ::= ENUMERATED {
    partial-reporting-allowed
}

Pattern-Sequence-Identifier ::= INTEGER (1.. maxNrOfDCHMeasurementOccasionPatternSequence)

PayloadCRC-PresenceIndicator ::= ENUMERATED {
    crc-included,
    crc-not-included
}

PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step 0.1dBm
```

```
PCH-InformationList ::= SEQUENCE (SIZE(0..1)) OF PCH-InformationItem

PCH-InformationItem ::= SEQUENCE {
    transportFormatSet              TransportFormatSet,
    iE-Extensions                   ProtocolExtensionContainer { { PCH-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PC-Preamble ::= INTEGER(0..7,...)

Periodic ::= SEQUENCE {
    reportPeriodicity       ReportPeriodicity,
    iE-Extensions           ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
    ...
}

Periodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PeriodicInformation ::= SEQUENCE {
    informationReportPeriodicity        InformationReportPeriodicity,
    iE-Extensions                       ProtocolExtensionContainer { {PeriodicInformation-ExtIEs} } OPTIONAL,
    ...
}

PeriodicInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Permanent-NAS-UE-Identity ::= CHOICE {
    imsi        IMSI,
    ...
}

Phase-Reference-Update-Indicator ::= ENUMERATED {
    phase-reference-needs-to-be-changed
}

PLCCHsequenceNumber ::= INTEGER (0..14)

PLMN-Identity ::= OCTET STRING (SIZE(3))

PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
}

PowerOffset             ::= INTEGER (0..24)
```

```
PowerOffsetForSecondaryCPICHforMIMO ::= INTEGER (-6..0)
-- Unit dB, Range -10dB .. 5dB, Step +1dB

PowerOffsetForSecondaryCPICHforMIMORequestIndicator ::= NULL

PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters

PRCDeviation ::= ENUMERATED {
    prcd1,
    prcd2,
    prcd5,
    prcd10,
    ...
}

Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
}

Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
}

PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

PreferredFrequencyLayerInfo ::= SEQUENCE {
    defaultPreferredFrequency       UARFCN,
    additionalPreferredFrequency    AdditionalPreferredFrequency    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { PreferredFrequencyLayerInfo-ExtIEs} } OPTIONAL,
    ...
}
PreferredFrequencyLayerInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


PrimaryCPICH-Power          ::= INTEGER (-100..500)
-- step 0.1 (Range –10.0..50.0) Unit is dBm

PrimaryCPICH-EcNo           ::= INTEGER (-30..30)

Primary-CPICH-Usage-For-Channel-Estimation ::= ENUMERATED {
   primary-CPICH-may-be-used,
   primary-CPICH-shall-not-be-used
}
```

```
PrimaryCCPCH-RSCP           ::= INTEGER (0..91)
-- Mapping of Non Negative values according to maping in [24]

PrimaryCCPCH-RSCP-Delta     ::= INTEGER (-5..-1,...)
-- Mapping of Negative values according to maping in [24]

PrimaryScramblingCode           ::= INTEGER (0..511)

PriorityLevel               ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority

PriorityQueue-Id ::= INTEGER (0..maxNrOfPrioQueues-1)

PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem

PriorityQueue-InfoItem ::= SEQUENCE {
    priorityQueue-Id                    PriorityQueue-Id,
    associatedHSDSCH-MACdFlow           HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
    discardTimer                        DiscardTimer                OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate      OPTIONAL,
    mACdPDU-Size-Index                  MACdPDU-Size-IndexList,
    rLC-Mode                            RLC-Mode,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs } }        OPTIONAL,
    ...
}

PriorityQueue-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject      EXTENSION   MAC-PDU-SizeExtended                    PRESENCE optional}|
{ ID id-DL-RLC-PDU-Size-Format              CRITICALITY ignore      EXTENSION   DL-RLC-PDU-Size-Format  PRESENCE optional}|
{ ID id-UE-AggregateMaximumBitRate-Enforcement-Indicator    CRITICALITY ignore      EXTENSION   UE-AggregateMaximumBitRate-Enforcement-Indicator
        PRESENCE optional},
    ...
}

PriorityQueue-InfoList-EnhancedFACH-PCH ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem-EnhancedFACH-PCH

PriorityQueue-InfoItem-EnhancedFACH-PCH ::= SEQUENCE {
    priorityQueue-Id                    PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
    mAC-ehs-Reset-Timer                 MAC-ehs-Reset-Timer,
    discardTimer                        DiscardTimer                            OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    maximum-MACdPDU-Size                MAC-PDU-SizeExtended,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-EnhancedFACH-PCH-ExtIEs } }       OPTIONAL,
    ...
}

PriorityQueue-InfoItem-EnhancedFACH-PCH-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF ModifyPriorityQueue

PriorityQueue-InfoItem-to-Add ::= SEQUENCE {
    priorityQueue-Id                    PriorityQueue-Id,
    associatedHSDSCH-MACdFlow           HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
    discardTimer                        DiscardTimer                            OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                  OPTIONAL,
    mACdPDU-Size-Index                  MACdPDU-Size-IndexList,
    rLC-Mode                            RLC-Mode,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Add-ExtIEs } }       OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Add-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject      EXTENSION   MAC-PDU-SizeExtended                    PRESENCE optional}|
{ ID id-DL-RLC-PDU-Size-Format              CRITICALITY ignore      EXTENSION   DL-RLC-PDU-Size-Format  PRESENCE optional},
    ...
}

PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
    priorityQueue-Id                    PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator             OPTIONAL,
    t1                                  T1                                      OPTIONAL,
    discardTimer                        DiscardTimer                            OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize                        OPTIONAL,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                  OPTIONAL,
    mACdPDU-Size-Index-to-Modify        MACdPDU-Size-IndexList-to-Modify                    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } }       OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject      EXTENSION   MAC-PDU-SizeExtended                    PRESENCE optional} |
{ ID id-DL-RLC-PDU-Size-Format          CRITICALITY ignore      EXTENSION   DL-RLC-PDU-Size-Format   PRESENCE optional},
    ...
}

PriorityQueue-InfoList-to-Modify-Unsynchronised ::= SEQUENCE (SIZE (0..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem-to-Modify-Unsynchronised

PriorityQueue-InfoItem-to-Modify-Unsynchronised ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator                                             OPTIONAL,
    discardTimer                        DiscardTimer                                                            OPTIONAL,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                                                  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs} }     OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

PropagationDelay            ::= INTEGER (0..255)

ProvidedInformation ::= SEQUENCE {
    mBMSChannelTypeInfo     MBMSChannelTypeInfo         OPTIONAL,
    mBMSPreferredFreqLayerInfo  MBMSPreferredFreqLayerInfo      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ProvideInformation-ExtIEs} } OPTIONAL,
    ...
}
ProvideInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UpPCH-InformationList-LCRTDD    CRITICALITY ignore      EXTENSION   UpPCH-InformationList-LCRTDD       PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only
    ...
}


UpPCH-InformationList-LCRTDD ::= SEQUENCE (SIZE (0.. maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ UpPCH-InformationItemIE-LCRTDD }}

UpPCH-InformationItemIE-LCRTDD RNSAP-PROTOCOL-IES ::= {
    { ID    id-UpPCH-InformationItem-LCRTDD CRITICALITY ignore  TYPE UpPCH-InformationItem-LCRTDD                  PRESENCE mandatory},
    ...
}

UpPCH-InformationItem-LCRTDD ::= SEQUENCE {
    uARFCNforNt             UARFCN                  OPTIONAL,
    uPPCHPositionLCR        UPPCHPositionLCR        OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { UpPCH-InformationItem-LCRTDD-ExtIEs} }                    OPTIONAL,
    ...
}

UpPCH-InformationItem-LCRTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PunctureLimit               ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100
-- 0 is not applicable for E-DPCH


PTMCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList

PTPCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList


-- Q

QE-Selector ::= ENUMERATED {
    selected,
    non-selected
}
Process-Memory-Size ::= ENUMERATED {
                                    hms800, hms1600, hms2400, hms3200, hms4000,
                                    hms4800, hms5600, hms6400, hms7200, hms8000,
```

```
                                    hms8800, hms9600, hms10400, hms11200, hms12000,
                                    hms12800, hms13600, hms14400, hms15200, hms16000,
                                    hms17600, hms19200, hms20800, hms22400, hms24000,
                                    hms25600, hms27200, hms28800, hms30400, hms32000,
                                    hms36000, hms40000, hms44000, hms48000, hms52000,
                                    hms56000, hms60000, hms64000, hms68000, hms72000,
                                    hms76000, hms80000, hms88000, hms96000, hms104000,
                                    hms112000, hms120000, hms128000, hms136000, hms144000,
                                    hms152000, hms160000, hms176000, hms192000, hms208000,
                                    hms224000, hms240000, hms256000, hms272000, hms288000,
                                    hms304000,...}

-- R

RAC                 ::= OCTET STRING (SIZE(1))

RANAP-EnhancedRelocationInformationRequest      ::= BIT STRING

RANAP-EnhancedRelocationInformationResponse     ::= BIT STRING

RANAP-RelocationInformation     ::= BIT STRING

Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s

RateMatchingAttribute           ::= INTEGER (1..maxRateMatching)

RB-Identity                     ::= INTEGER (0..31)

RB-Info ::= SEQUENCE (SIZE(1..maxNoOfRB)) OF RB-Identity

Received-Total-Wideband-Power-Value ::= Received-total-wide-band-power

Received-Total-Wideband-Power-Value-IncrDecrThres ::= INTEGER(0..620)
-- Unit dB Step 0.1dB
-- e.g. value 100 means 10dB

Reference-E-TFCI-Information ::= SEQUENCE (SIZE (1..maxNrOfRefETFCIs)) OF Reference-E-TFCI-Information-Item

Reference-E-TFCI-Information-Item ::= SEQUENCE {
    reference-E-TFCI                E-TFCI,
    -- The following IE shall be ignored if id-Ext-Reference-E-TFCI-PO is present in Reference-E-TFCI-Information-Item-ExtIEs
    reference-E-TFCI-PO             Reference-E-TFCI-PO,
    iE-Extensions                   ProtocolExtensionContainer { { Reference-E-TFCI-Information-Item-ExtIEs} }     OPTIONAL,
    ...
}

Reference-E-TFCI-Information-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- The following IE shall be present if the ref E-TFCI power offset to be signalled exceeds maxNrOfRefETFCI-PO-QUANTSTEPs
    { ID id-Ext-Reference-E-TFCI-PO     CRITICALITY reject      EXTENSION   Ext-Reference-E-TFCI-PO     PRESENCE optional},
    ...
}

Reference-E-TFCI-PO ::= INTEGER (0.. maxNrOfRefETFCI-PO-QUANTSTEPs)
```

```
RefTFCNumber ::= INTEGER (0..15)

Released-CN-Domain ::= CHOICE {
    pSDomain                NULL,
    cSDomain                NULL,
    pS-CSDomain             NULL,
    ...
}


RepetitionLength            ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64
}

RepetitionNumber0 ::= INTEGER (0..255)

RepetitionNumber1 ::= INTEGER (1..256)

ReportCharacteristics ::= CHOICE {
    onDemand            NULL,
    periodic            Periodic,
    eventA              EventA,
    eventB              EventB,
    eventC              EventC,
    eventD              EventD,
    eventE              EventE,
    eventF              EventF,
    ...,
    extension-ReportCharacteristics     Extension-ReportCharacteristics
}

Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}

Extension-ReportCharacteristicsIE RNSAP-PROTOCOL-IES ::= {
    { ID id-OnModification  CRITICALITY reject  TYPE OnModification     PRESENCE mandatory }
}

ReportPeriodicity ::= CHOICE {
    ten-msec                INTEGER (1..6000,...),
-- The Report Periodicity gives the reporting periodicity in number of 10 ms periods.
-- E.g. value 6000 means 60000ms (i.e. 1min)
-- Unit ms, Step 10ms
    min             INTEGER (1..60,...),
-- Unit min, Step 1min
    ...
```

```
}

RequestedDataValue ::= SEQUENCE {
    gA-AccessPointPositionwithAltitude          GA-AccessPointPositionwithOptionalAltitude  OPTIONAL,
    iPDLParameters                              IPDLParameters                              OPTIONAL,
    dGPSCorrections                             DGPSCorrections                             OPTIONAL,
    gPS-NavigationModel-and-TimeRecovery        GPS-NavigationModel-and-TimeRecovery        OPTIONAL,
    gPS-Ionospheric-Model                       GPS-Ionospheric-Model                       OPTIONAL,
    gPS-UTC-Model                               GPS-UTC-Model                               OPTIONAL,
    gPS-Almanac                                 GPS-Almanac                                 OPTIONAL,
    gPS-RealTime-Integrity                      GPS-RealTime-Integrity                      OPTIONAL,
    gPS-RX-POS                                  GPS-RX-POS                                  OPTIONAL,
    sFNSFN-GA-AccessPointPosition               GA-AccessPointPositionwithOptionalAltitude  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RequestedDataValue-ExtIEs} }     OPTIONAL,
    ...
}

RequestedDataValue-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Cell-Capacity-Class-Value               CRITICALITY ignore  EXTENSION Cell-Capacity-Class-Value              PRESENCE optional }|
    { ID id-NACC-Related-Data                       CRITICALITY ignore  EXTENSION NACC-Related-Data                      PRESENCE optional }|
    { ID id-MBMS-Bearer-Service-Full-Address        CRITICALITY ignore  EXTENSION MBMS-Bearer-Service-Full-Address       PRESENCE optional }|
    { ID id-Inter-Frequency-Cell-Information        CRITICALITY ignore  EXTENSION   Inter-Frequency-Cell-Information     PRESENCE optional }|
    { ID id-GANSS-Common-Data                       CRITICALITY ignore  EXTENSION GANSS-Common-Data                      PRESENCE optional }|
    { ID id-GANSS-Generic-Data                      CRITICALITY ignore  EXTENSION GANSS-Generic-Data                     PRESENCE optional }|
    { ID id-Counting-Information                    CRITICALITY ignore  EXTENSION Counting-Information                   PRESENCE optional }|
    { ID id-Transmission-Mode-Information           CRITICALITY ignore  EXTENSION Transmission-Mode-Information          PRESENCE optional }|
    { ID id-MBMS-Neighbouring-Cell-Information      CRITICALITY ignore  EXTENSION MBMS-Neighbouring-Cell-Information     PRESENCE optional }|
    { ID id-RLC-Sequence-Number                     CRITICALITY ignore  EXTENSION RLC-Sequence-Number                    PRESENCE optional },
    ...
}

RequestedDataValueInformation ::= CHOICE {
    informationAvailable        InformationAvailable,
    informationNotAvailable     InformationNotAvailable
}

RestrictionStateIndicator   ::= ENUMERATED {
    cellNotResevedForOperatorUse,
    cellResevedForOperatorUse,
    ...
}

RL-ID                   ::= INTEGER (0..31)

RL-Set-ID               ::= INTEGER (0..31)

RL-Specific-DCH-Info ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item

RL-Specific-DCH-Info-Item ::= SEQUENCE {
    dCH-id                  DCH-ID,
    bindingID               BindingID OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
    transportLayerAddress   TransportLayerAddress       OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
```

```
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-DCH-Info-Item-ExtIEs} }  OPTIONAL,
    ...
}

RL-Specific-DCH-Info-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotRequestedIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotRequestedIndicator   PRESENCE optional }, --
FDD only
    ...
}

RL-Specific-EDCH-Information ::= SEQUENCE {
    rL-Specific-EDCH-Info   RL-Specific-EDCH-Info,
    e-AGCH-PowerOffset      E-AGCH-PowerOffset                                          OPTIONAL,
    e-RGCH-PowerOffset      E-RGCH-PowerOffset                                          OPTIONAL,
    e-HICH-PowerOffset      E-HICH-PowerOffset                                          OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-EDCH-Information-Item-ExtIEs} }  OPTIONAL,
    ...
}


RL-Specific-EDCH-Information-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


RL-Specific-EDCH-Info ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF RL-Specific-EDCH-InfoItem

RL-Specific-EDCH-InfoItem ::= SEQUENCE {
    eDCH-MACdFlow-ID                    EDCH-MACdFlow-ID,
    bindingID                           BindingID           OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
    transportLayerAddress               TransportLayerAddress       OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-EDCH-Info-Item-ExtIEs} } OPTIONAL,
    ...
}

RL-Specific-EDCH-Info-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotRequestedIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotRequestedIndicator   PRESENCE optional }, --
FDD only
    ...
}

RLC-Mode    ::= ENUMERATED {
    rLC-AM,
    rLC-UM,
    ...
}
DL-RLC-PDU-Size-Format  ::= ENUMERATED {
    fixed-RLC-PDU-Size,
    flexible-RLC-PDU-Size,
    ...
}
```

```
RLC-Sequence-Number     ::= INTEGER (0..127)

RNC-ID                  ::= INTEGER (0..4095)

RNTI-Allocation-Indicator ::= ENUMERATED {
    true
}

Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)

Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [23]

RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [24]

RSCP-Value-IncrDecrThres ::= INTEGER (0..126)

Received-total-wide-band-power              ::= INTEGER (0..621)
-- According to mapping in [23]

RT-Load-Value-IncrDecrThres ::= INTEGER(0..100)

RT-Load-Value ::= INTEGER(0..100)

RTLoadValue ::= SEQUENCE {
        uplinkRTLoadValue       INTEGER(0..100),
        downlinkRTLoadValue     INTEGER(0..100)
}

RxTimingDeviationForTA              ::= INTEGER (0..127)
-- As specified in [5], ch. 6.2.7.6
-- For 1.28Mcps TDD this IE must be set to 0.

RxTimingDeviationForTAext               ::= INTEGER (0..511)
-- As specified in [5] [3.84 Mcps TDD only]

RxTimingDeviationForTA768               ::= INTEGER (0.. 1023)
-- As specified in [5]

Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
--According to mapping in [24][3.84Mcps TDD only]

Rx-Timing-Deviation-Value-ext ::= INTEGER (0..32767)
--According to mapping in [24][3.84Mcps TDD only]

Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
--According to mapping in [24][1.28Mcps TDD only]

Rx-Timing-Deviation-Value-768 ::= INTEGER (0..65535)
--According to mapping in [24][7.68Mcps TDD only]

RefBeta ::= INTEGER (-15..16)
```

```
-- S

SAC                 ::= OCTET STRING (SIZE (2))

SAI ::= SEQUENCE {
    pLMN-Identity       PLMN-Identity,
    lAC                 LAC,
    sAC                 SAC,
    iE-Extensions       ProtocolExtensionContainer { {SAI-ExtIEs} } OPTIONAL
}

SAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SAT-ID ::= INTEGER (0..63)

SCH-TimeSlot                ::= INTEGER (0..6)

ScaledAdjustmentRatio           ::= INTEGER(0..100)
-- AdjustmentRatio  = ScaledAdjustmentRatio / 100

SchedulingInformation           ::= ENUMERATED {
    included,
    not-included
}


SecondaryServingCells ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF SecondaryServingCellsItem

SecondaryServingCellsItem ::= SEQUENCE {
    secondaryC-ID               C-ID,
    numSecondaryHS-SCCH-Codes       NumHS-SCCH-Codes        OPTIONAL,
    sixtyfourQAM-UsageAllowedIndicator      SixtyfourQAM-UsageAllowedIndicator      OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { SecondaryServingCellsItem-ExtIEs} }          OPTIONAL,
    ...
}

SecondaryServingCellsItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ID id-MIMO-ActivationIndicator         CRITICALITY ignore      EXTENSION MIMO-ActivationIndicator   PRESENCE optional}|
{ID id-EDCH-Indicator           CRITICALITY ignore      EXTENSION NULL      PRESENCE optional},
    ...
}


Secondary-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS                             TFCS,
    tFCI-Coding                         TFCI-Coding,
    secondary-CCPCH-TDD-InformationList     Secondary-CCPCH-TDD-InformationList,
    fACH-InformationList                FACH-InformationList,
    pCH-InformationList                 PCH-InformationList,
    iE-Extensions                       ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
Secondary-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CPICH-Information ::= SEQUENCE {
   dl-ScramblingCode                        DL-ScramblingCode,
   fDD-DL-ChannelisationCodeNumber          FDD-DL-ChannelisationCodeNumber,
   iE-Extensions                            ProtocolExtensionContainer { { Secondary-CPICH-Information-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CPICH-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CPICH-Information-Change ::= CHOICE {
new-secondary-CPICH                 Secondary-CPICH-Information,
secondary-CPICH-shall-not-be-used   NULL,
...
}

Secondary-LCR-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS                                 TFCS,
    tFCI-Coding                             TFCI-Coding,
    secondary-LCR-CCPCH-TDD-InformationList Secondary-LCR-CCPCH-TDD-InformationList,
    fACH-InformationList                    FACH-InformationList,
    pCH-InformationList                     PCH-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-LCR-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-LCR-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-Info-TDD768::= SEQUENCE {
    dl-TFCS                                 TFCS,
    tFCI-Coding                             TFCI-Coding,
    secondary-CCPCH-TDD-InformationList768      Secondary-CCPCH-TDD-InformationList768,
    fACH-InformationList                    FACH-InformationList,
    pCH-InformationList                     PCH-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD768-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-TDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-InformationItem

Secondary-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlot                        TimeSlot,
```

```
    midambleShiftAndBurstType       MidambleShiftAndBurstType,
    tFCI-Presence                   TFCI-Presence,
    secondary-CCPCH-TDD-Code-Information               Secondary-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset       TDD-PhysicalChannelOffset,
    repetitionLength                RepetitionLength,
    repetitionPeriod                RepetitionPeriod,
    iE-Extensions                   ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-LCR-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-InformationItem

Secondary-LCR-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    tFCI-Presence                           TFCI-Presence,
    secondary-LCR-CCPCH-TDD-Code-Information    Secondary-LCR-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionLength                        RepetitionLength,
    repetitionPeriod                        RepetitionPeriod,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-InformationList768 ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs768)) OF Secondary-CCPCH-TDD-InformationItem768

Secondary-CCPCH-TDD-InformationItem768 ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768,
    tFCI-Presence                   TFCI-Presence,
    secondary-CCPCH-TDD-Code-Information768             Secondary-CCPCH-TDD-Code-Information768,
    tDD-PhysicalChannelOffset       TDD-PhysicalChannelOffset,
    repetitionLength                RepetitionLength,
    repetitionPeriod                RepetitionPeriod,
    iE-Extensions                   ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-Code-InformationItem

Secondary-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCode          TDD-ChannelisationCode,
```

```
    iE-Extensions                   ProtocolExtensionContainer { {Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-LCR-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-Code-InformationItem

Secondary-LCR-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCodeLCR       TDD-ChannelisationCodeLCR,
    s-CCPCH-TimeSlotFormat-LCR      TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                   ProtocolExtensionContainer { {Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-Code-Information768 ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs768)) OF Secondary-CCPCH-TDD-Code-InformationItem768

Secondary-CCPCH-TDD-Code-InformationItem768 ::= SEQUENCE {
    tDD-ChannelisationCode768           TDD-ChannelisationCode768,
    iE-Extensions                   ProtocolExtensionContainer { {Secondary-CCPCH-TDD-Code-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-Code-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Secondary-Serving-Cell-List ::= SEQUENCE {
    possible-Secondary-Serving-Cell-List                        Possible-Secondary-Serving-Cell-List,
    iE-Extensions               ProtocolExtensionContainer { { Secondary-Serving-Cell-List-ExtIEs } }     OPTIONAL,
    ...
}

Secondary-Serving-Cell-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
Possible-Secondary-Serving-Cell-List ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH-1)) OF Possible-Secondary-Serving-Cell

Possible-Secondary-Serving-Cell ::= SEQUENCE {
    c-ID                        C-ID,
    iE-Extensions               ProtocolExtensionContainer { { Possible-Secondary-Serving-Cell-ExtIEs } }       OPTIONAL,
    ...
}

Possible-Secondary-Serving-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeslot-related,
    ...
}

Secondary-UL-Frequency-Activation-State ::= ENUMERATED {
    activated,
    deactivated,
        ...
}

Seed ::= INTEGER (0..63)

Service-ID  ::= OCTET STRING (SIZE (3))

SetsOfHS-SCCH-Codes ::= SEQUENCE (SIZE (1..maxNrOfHSDSCH)) OF SetsOfHS-SCCH-CodesItem

SetsOfHS-SCCH-CodesItem ::= SEQUENCE {
    hS-SCCH-PreconfiguredCodes      HS-SCCH-PreconfiguredCodes,
    hSDSCH-RNTI         HSDSCH-RNTI,
    hSPDSCH-and-HSSCCH-ScramblingCode       DL-ScramblingCode,
    sixtyfourQAM-DL-SupportIndicator        SixtyfourQAM-DL-SupportIndicator        OPTIONAL,
    sixtyfourQAM-DL-UsageIndicator      SixtyfourQAM-DL-UsageIndicator      OPTIONAL,
    hSDSCH-TBSizeTableIndicator     HSDSCH-TBSizeTableIndicator             OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SetsOfHS-SCCH-CodesItem-ExtIEs} } OPTIONAL,
    ...
}

SetsOfHS-SCCH-CodesItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ID id-MIMO-InformationResponse         CRITICALITY ignore      EXTENSION MIMO-InformationResponse   PRESENCE optional},
    ...
}

Setup-Or-ConfigurationChange-Or-Removal-Of-EDCH-On-secondary-UL-Frequency::= CHOICE {
    setup                   Additional-EDCH-Setup-Info,
    configurationChange     Additional-EDCH-Cell-Information-ConfigurationChange-List,
    removal                 Additional-EDCH-Cell-Information-Removal-List,
    ...
}

SFN ::= INTEGER (0..4095)

SFNSFN-FDD ::= INTEGER(0..614399)

SFNSFN-TDD ::= INTEGER(0..40961)

SFNSFN-TDD768 ::= INTEGER(0..81923)

GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE {
    geographicalCoordinate                      GeographicalCoordinate,
    altitudeAndDirection                        GA-AltitudeAndDirection  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs} } OPTIONAL,
```

```
    ...
}

GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s

SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s

SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit                   SFNSFNChangeLimit                   OPTIONAL,
    predictedSFNSFNDeviationLimit       PredictedSFNSFNDeviationLimit       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

SFNSFNMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation       SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-ID       UC-ID,
            sFNSFNValue                 SFNSFNValue,
            sFNSFNQuality               SFNSFNQuality                   OPTIONAL,
            sFNSFNDriftRate             SFNSFNDriftRate,
            sFNSFNDriftRateQuality      SFNSFNDriftRateQuality      OPTIONAL,
            sFNSFNTimeStampInformation  SFNSFNTimeStampInformation,
            iE-Extensions               ProtocolExtensionContainer { {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }     OPTIONAL,
            ...
        },
    unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation     SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
        SEQUENCE {
            uC-ID       UC-ID,
            iE-Extensions       ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }       OPTIONAL,
            ...
        },
    iE-Extensions       ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }     OPTIONAL,
    ...
}

SFNSFNMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip


SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD     SFN,
    sFNSFNTimeStamp-TDD     SFNSFNTimeStamp-TDD,
    ...
}

SFNSFNTimeStamp-TDD::= SEQUENCE {
    sFN                 SFN,
    timeSlot            TimeSlot,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs}} OPTIONAL,
    ...
}

SFNSFNTimeStamp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNValue ::= CHOICE {
    sFNSFN-FDD      SFNSFN-FDD,
    sFNSFN-TDD      SFNSFN-TDD,     -- LCR & HCR TDD
    ...,
    sFNSFN-TDD768       SFNSFN-TDD768
}

SID ::= INTEGER (0..maxNrOfPDUIndexes-1)

Single-Stream-MIMO-ActivationIndicator  ::= NULL

Single-Stream-MIMO-Mode-Indicator ::= ENUMERATED {
    activate,
    deactivate
}


SIR-Error-Value         ::= INTEGER (0..125)
```

```
SIR-Error-Value-IncrDecrThres           ::= INTEGER (0..124)

SIR-Value               ::= INTEGER (0..63)
-- According to mapping in [11]/[14]

SIR-Value-IncrDecrThres ::= INTEGER (0..62)


SixteenQAM-UL-Operation-Indicator ::= ENUMERATED {
    activate,
    deactivate
}

SixtyfourQAM-UsageAllowedIndicator ::= ENUMERATED {
    allowed,
    not-allowed
}

SixtyfourQAM-DL-SupportIndicator ::= ENUMERATED {
    sixtyfourQAM-DL-supported,
    sixtyfourQAM-DL-not-supported
}

SixtyfourQAM-DL-UsageIndicator ::= ENUMERATED {
    sixtyfourQAM-DL-used,
    sixtyfourQAM-DL-not-used
}


SignatureSequenceGroupIndex ::= INTEGER (0..19)

SNA-Information ::= SEQUENCE {
    pLMN-Identity   PLMN-Identity,
   listOfSNAs           ListOfSNAs                                          OPTIONAL,
   iE-Extensions        ProtocolExtensionContainer { { SNA-Information-ExtIEs} } OPTIONAL,
   ...
}

SNA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ListOfSNAs ::= SEQUENCE (SIZE (1.. maxNrOfSNAs)) OF SNACode

SNACode ::= INTEGER (0..65535)

SpecialBurstScheduling ::= INTEGER (1..256)

S-RNTI                  ::= INTEGER (0..1048575)
-- From 0 to 2^20-1

S-RNTI-Group            ::= SEQUENCE {
    sRNTI                   S-RNTI,
```

```
    sRNTI-BitMaskIndex      ENUMERATED {
        b1,
        b2,
        b3,
        b4,
        b5,
        b6,
        b7,
        b8,
        b9,
        b10,
        b11,
        b12,
        b13,
        b14,
        b15,
        b16,
        b17,
        b18,
        b19,...
}
}

SRB-Delay ::= INTEGER(0..7,...)



SSDT-SupportIndicator ::= ENUMERATED {
    not-Used-sSDT-supported,
    sSDT-not-supported
}

Status-Flag ::= ENUMERATED {
    activate,
    deactivate
}

STTD-SupportIndicator   ::= ENUMERATED {
    sTTD-Supported,
    sTTD-not-Supported
}

Support-8PSK ::= ENUMERATED {
    v8PSK-Supported
}

Support-PLCCH ::= ENUMERATED {
    vPLCCH-Supported
}

SyncCase ::= INTEGER (1..2,...)

SynchronisationConfiguration ::= SEQUENCE {
    n-INSYNC-IND            INTEGER (1..256),
```

```
    n-OUTSYNC-IND           INTEGER (1..256),
    t-RLFAILURE             INTEGER (0..255),
-- Unit seconds, Range 0s .. 25.5s, Step 0.1s
    iE-Extensions           ProtocolExtensionContainer { { SynchronisationConfiguration-ExtIEs} }    OPTIONAL,
    ...
}

SynchronisationConfiguration-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNC-UL-ProcParameters  ::= SEQUENCE {
    maxSYNC-UL-transmissions        ENUMERATED {v1, v2, v4, v8, ...},
    powerRampStep                   INTEGER (0..3, ...),
    ...
    }

-- T

T1 ::= ENUMERATED {v10,v20,v30,v40,v50,v60,v70,v80,v90,v100,v120,v140,v160,v200,v300,v400,...}

TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range -7dB .. +8dB, Step 1dB

TDD-ChannelisationCode          ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
```

```
    chCode16div15,
    chCode16div16,
    ...
}

TDD-ChannelisationCode768           ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    chCode32div1,
    chCode32div2,
    chCode32div3,
    chCode32div4,
    chCode32div5,
    chCode32div6,
    chCode32div7,
    chCode32div8,
    chCode32div9,
    chCode32div10,
    chCode32div11,
    chCode32div12,
    chCode32div13,
    chCode32div14,
    chCode32div15,
    chCode32div16,
    chCode32div17,
```

```
    chCode32div18,
    chCode32div19,
    chCode32div20,
    chCode32div21,
    chCode32div22,
    chCode32div23,
    chCode32div24,
    chCode32div25,
    chCode32div26,
    chCode32div27,
    chCode32div28,
    chCode32div29,
    chCode32div30,
    chCode32div31,
    chCode32div32,
    ...
}

TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    modulation                      Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD or 7.68Mcps TDD
    ...
}

TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifyItem

TDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode                          UL-FP-Mode  OPTIONAL,
    toAWS                               ToAWS       OPTIONAL,
    toAWE                               ToAWE       OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    dCH-SpecificInformationList         TDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions                       ProtocolExtensionContainer { {TDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
    ...
}

TDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                      CRITICALITY     ignore      EXTENSION   TnlQos  PRESENCE  optional },
    ...
}

TDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifySpecificItem

TDD-DCHs-to-ModifySpecificItem ::=  SEQUENCE {
    dCH-ID                          DCH-ID,
    ul-CCTrCH-ID                    CCTrCH-ID       OPTIONAL,
    dl-CCTrCH-ID                    CCTrCH-ID       OPTIONAL,
    ul-TransportformatSet           TransportFormatSet  OPTIONAL,
    dl-TransportformatSet           TransportFormatSet  OPTIONAL,
    allocationRetentionPriority     AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority           FrameHandlingPriority   OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    ...
}
```

```
TDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information     CRITICALITY ignore  EXTENSION Guaranteed-Rate-Information     PRESENCE optional }|
    { ID id-TrafficClass        CRITICALITY ignore  EXTENSION TrafficClass      PRESENCE optional},
    ...
}

TDD-DL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem

TDD-DL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationItem

TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    tdd-DL-DPCH-TimeSlotFormat-LCR          TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                           ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-DL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-Information768 ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs768)) OF TDD-DL-Code-InformationItem768

TDD-DL-Code-InformationItem768 ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode768       TDD-ChannelisationCode768,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                        QPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK                    EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    ...
}

QPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
```

```
EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

TDD-DPCHOffset ::= CHOICE {
    initialOffset       INTEGER (0..255),
    noinitialOffset     INTEGER (0..63)
}

TDD-PhysicalChannelOffset       ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TDD-UL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem

TDD-UL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-UL-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationItem

TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    tdd-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR      TDD-UL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                       ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-Information768 ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs768)) OF TDD-UL-Code-InformationItem768

TDD-UL-Code-InformationItem768 ::= SEQUENCE {
```

```
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode768       TDD-ChannelisationCode768,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-UL-Code-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                        QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK                    EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    ...
}

QPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)

EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    ...
}

TFCI-Presence ::= ENUMERATED {
    present,
    not-present
}

TFCI-SignallingMode ::= ENUMERATED {
    normal,
    not-Used-split
}
-- The value "Not Used" shall not be used by the SRNC. The procedure shall be rejected by the DRNC if the value "Not Used" is received.

TGD                 ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence

TGPRC               ::= INTEGER (0..511)
-- 0 = infinity

TGPSID              ::= INTEGER (1.. maxTGPS)

TGSN                ::= INTEGER (0..14)

TimeSlot                ::= INTEGER (0..14)

TimeSlotLCR ::= INTEGER (0..6)

Time-Stamp ::= INTEGER (0..9999)
```

```
-- Unit: 10ms


TimingAdvanceApplied ::= ENUMERATED {
    yes,
    no
}

SynchronisationIndicator ::= ENUMERATED {
    timingMaintainedSynchronisation,
    ...
}

TMGI    ::= SEQUENCE    {
    plmn-id     PLMN-Identity,
    service-id  Service-ID,
    iE-Extensions                   ProtocolExtensionContainer { { TMGI-ExtIEs} }       OPTIONAL,
    ...
}

TMGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TnlQos ::= CHOICE {
    dsField                     DsField,
    genericTrafficCategory      GenericTrafficCategory,
    ...
}

ToAWE                   ::= INTEGER (0..2559)

ToAWS                   ::= INTEGER (0..1279)

TraceDepth                      ::= ENUMERATED {
    minimum,
    medium,
    maximum,
    ...
}

TraceRecordingSessionReference  ::= INTEGER (0..65535)

TraceReference                  ::= OCTET STRING (SIZE (2..3))

TrafficClass ::= ENUMERATED {
    conversational,
    streaming,
    interactive,
    background,
    ...
}
```

```
Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
    SEQUENCE {
        tGPSID          TGPSID,
        tGSN            TGSN,
        tGL1            GapLength,
        tGL2            GapLength   OPTIONAL,
        tGD             TGD,
        tGPL1           GapDuration,
        not-to-be-used-1            GapDuration OPTIONAL,
            -- This IE shall never be included in the SEQUENCE. If received it shall be ignored
        uL-DL-mode      UL-DL-mode,
        downlink-Compressed-Mode-Method     Downlink-Compressed-Mode-Method     OPTIONAL,
            -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL"
        uplink-Compressed-Mode-Method       Uplink-Compressed-Mode-Method       OPTIONAL,
            -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL"
        dL-FrameType        DL-FrameType,
        delta-SIR1      DeltaSIR,
        delta-SIR-after1    DeltaSIR,
        delta-SIR2      DeltaSIR    OPTIONAL,
        delta-SIR-after2    DeltaSIR    OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
        ...
    }

Transmission-Gap-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmission-Gap-Pattern-Sequence-ScramblingCode-Information    ::= ENUMERATED{
   code-change,
   nocode-change
}

Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEQUENCE {
        tGPSID          TGPSID,
        tGPRC           TGPRC,
        tGCFN           CFN,
        iE-Extensions       ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
        ...
}

Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionMode    ::=ENUMERATED {
    p-t-p,
    p-t-m,
    not-provided,
    ...
}

Transmission-Mode-Information::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Transmission-Mode-Information-List
```

```
Transmission-Mode-Information-List ::= SEQUENCE {
    c-ID                                C-ID,
    transmissionMode                    TransmissionMode,
    iE-Extensions                       ProtocolExtensionContainer { { Transmission-Mode-Information-List-ExtIEs} } OPTIONAL,
    ...
}

Transmission-Mode-Information-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionTimeIntervalDynamic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    ...
}

TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    dynamic,
    ...
}

TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
}

Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- according to mapping in [23] and [24]

Transmitted-Carrier-Power-Value-IncrDecrThres ::= INTEGER(0..100)
-- according to mapping in [23] and [24]

Transport-Block-Size-Index ::= INTEGER(1..maxNrOfHS-DSCHTBSs)

TUTRANGANSS ::= SEQUENCE {
    mS              INTEGER(0..16383),
    lS              INTEGER(0..4294967295)
}

TUTRANGANSSAccuracyClass ::= ENUMERATED {
    ganssAccuracy-class-A,
    ganssAccuracy-class-B,
    ganssAccuracy-class-C,
    ...
}
```

```
TUTRANGANSSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGANSSChangeLimit                  INTEGER(1..256)                                                 OPTIONAL,
    predictedTUTRANGANSSDeviationLimit      INTEGER(1..256)                                                 OPTIONAL,
    ie-Extensions           ProtocolExtensionContainer { { TUTRANGANSSMeasurementThresholdInformation-ExtIEs } }    OPTIONAL,
    ...
}

TUTRANGANSSMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGANSSMeasurementValueInformation ::= SEQUENCE {
    tUTRANGANSS                     TUTRANGANSS,
    tUTRANGANSSQuality              INTEGER(0..255)                                                     OPTIONAL,
    tUTRANGANSSDriftRate            INTEGER(-50..50),
    tUTRANGANSSDriftRateQuality     INTEGER(0..50)                                                      OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { TUTRANGANSSMeasurementValueInformation-ExtIEs } }  OPTIONAL,
    ...
}

TUTRANGANSSMeasurementValueInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GANSS-Time-ID           CRITICALITY ignore      EXTENSION GANSS-Time-ID     PRESENCE                    optional},
    ...
}

TUTRANGPS ::= SEQUENCE {
    ms-part     INTEGER (0..16383),
    ls-part     INTEGER (0..4294967295)
}

TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s

TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s

TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
    accuracy-class-B,
    accuracy-class-C,
    ...
}

TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit                    TUTRANGPSChangeLimit                    OPTIONAL,
    predictedTUTRANGPSDeviationLimit        PredictedTUTRANGPSDeviationLimit        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { TUTRANGPSMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
```

```
}

TUTRANGPSMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
        tUTRANGPS                       TUTRANGPS,
        tUTRANGPSQuality                TUTRANGPSQuality                OPTIONAL,
        tUTRANGPSDriftRate              TUTRANGPSDriftRate,
        tUTRANGPSDriftRateQuality       TUTRANGPSDriftRateQuality       OPTIONAL,
        iEe-Extensions                  ProtocolExtensionContainer { { TUTRANGPSMeasurementValueInformationItem-ExtIEs} }   OPTIONAL,
        ...
}

TUTRANGPSMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

TransportBearerID       ::= INTEGER (0..4095)

TransportBearerRequestIndicator     ::= ENUMERATED {
    bearer-requested,
    bearer-not-requested,
    ...
}

TransportBearerNotRequestedIndicator        ::= ENUMERATED {
    transport-bearer-shall-not-be-established,
    transport-bearer-may-not-be-established
}

TransportBearerNotSetupIndicator        ::= ENUMERATED {
    transport-bearer-not-setup
}

TransportBlockSize          ::= INTEGER (0..5000)
-- Unit is bits

TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors    SEQUENCE {
        betaC                   BetaCD,
        betaD                   BetaCD,
        refTFCNumber            RefTFCNumber    OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs} } OPTIONAL,
        ...
    },
    refTFCNumber            RefTFCNumber,
    ...
```

```
}

SignalledGainFactors-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS ::= SEQUENCE {
    tFCSvalues          CHOICE {
        no-Split-in-TFCI            TFCS-TFCSList,
        not-Used-split-in-TFCI      NULL,
        -- This choice shall never be made by the SRNC and the DRNC shall consider the procedure as failed if it is received.
        ...
    },
    iE-Extensions       ProtocolExtensionContainer  { { TFCS-ExtIEs} }      OPTIONAL,
    ...
}

TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
        cTFC                TFCS-CTFC,
        tFC-Beta        TransportFormatCombination-Beta     OPTIONAL,
        -- The IE shall be present if the TFCS concerns a UL DPCH [FDD - or PRACH channel in FDD]
        iE-Extensions       ProtocolExtensionContainer  { { TFCS-TFCSList-ExtIEs} }     OPTIONAL,
    ...
}

TFCS-TFCSList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-CTFC ::= CHOICE {
    ctfc2bit                            INTEGER (0..3),
    ctfc4bit                            INTEGER (0..15),
    ctfc6bit                            INTEGER (0..63),
    ctfc8bit                            INTEGER (0..255),
    ctfc12bit                           INTEGER (0..4095),
    ctfc16bit                           INTEGER (0..65535),
    ctfcmaxbit                          INTEGER (0..maxCTFC)
}

TransportFormatSet ::= SEQUENCE {
    dynamicParts            TransportFormatSet-DynamicPartList,
    semi-staticPart         TransportFormatSet-Semi-staticPart,
    iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-ExtIEs} } OPTIONAL,
    ...
}

TransportFormatSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
        nrOfTransportBlocks     NrOfTransportBlocks,
        transportBlockSize      TransportBlockSize      OPTIONAL
        -- This IE shall be present if nrOfTransportBlocks is greater than 0 --,
        mode                TransportFormatSet-ModeDP,
        iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-DynamicPartList-ExtIEs} } OPTIONAL,
        ...
    }

TransportFormatSet-DynamicPartList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ModeDP ::= CHOICE {
    tdd                 TDD-TransportFormatSet-ModeDP,
    notApplicable       NULL,
    ...
}

TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation     TransmissionTimeIntervalInformation     OPTIONAL,
    -- This IE shall be present if the “Transmission Time Interval” of the “Semi-static Transport Format Information” is “dynamic”. Otherwise it is
absent.
    iE-Extensions                           ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    ...
    }

TDD-TransportFormatSet-ModeDP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
    SEQUENCE {
        transmissionTimeInterval    TransmissionTimeIntervalDynamic,
        iE-Extensions           ProtocolExtensionContainer { {TransmissionTimeIntervalInformation-ExtIEs} } OPTIONAL,
        ...
    }

TransmissionTimeIntervalInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [11]/[14]

Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)

TransportFormatManagement ::= ENUMERATED {
    cell-based,
    ue-based,
    ...
}
```

```
TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTime        TransmissionTimeIntervalSemiStatic,
    channelCoding           ChannelCodingType,
    codingRate          CodingRate              OPTIONAL
    -- This IE shall be present if channelCoding is 'convolutional' or 'turbo' --,
    rateMatcingAttribute        RateMatchingAttribute,
    cRC-Size            CRC-Size,
    mode                TransportFormatSet-ModeSSP,
    iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
    ...
}

TransportFormatSet-Semi-staticPart-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd             SecondInterleavingMode,
    notApplicable           NULL,
    ...
}

TransportLayerAddress           ::= BIT STRING (SIZE(1..160, ...))

TrCH-SrcStatisticsDescr     ::= ENUMERATED {
    speech,
    rRC,
    unknown,
    ...
}

TSN-Length ::= ENUMERATED {
    tsn-6bits,
    tsn-9bits
}

TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
}

TSTD-Support-Indicator ::= ENUMERATED {
    tSTD-supported,
    tSTD-not-supported
}

TxDiversityIndicator    ::= ENUMERATED {
    true,
    false
}

TypeOfError ::= ENUMERATED {
    not-understood,
```

```
    missing,
    ...
}

-- U

UARFCN                  ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See [7], [43]

UDRE ::= ENUMERATED {
    lessThan1,
    between1-and-4,
    between4-and-8,
    over8,
    ...
}

UDREGrowthRate ::=                  ENUMERATED {
                                        growth-1-point-5,
                                        growth-2,
                                        growth-4,
                                        growth-6,
                                        growth-8,
                                        growth-10,
                                        growth-12,
                                        growth-16   }

UDREValidityTime    ::=             ENUMERATED {
                                        val-20sec,
                                        val-40sec,
                                        val-80sec,
                                        val-160sec,
                                        val-320sec,
                                        val-640sec,
                                        val-1280sec,
                                        val-2560sec }

UE-AggregateMaximumBitRate ::= SEQUENCE {
    uE-AggregateMaximumBitRateDownlink      UE-AggregateMaximumBitRateDownlink  OPTIONAL,
    uE-AggregateMaximumBitRateUplink        UE-AggregateMaximumBitRateUplink    OPTIONAL,
    ...
}

UE-AggregateMaximumBitRateDownlink          ::= INTEGER (1..1000000000)
-- Unit is bits per sec

UE-AggregateMaximumBitRateUplink            ::= INTEGER (1..1000000000)
-- Unit is bits per sec

UE-AggregateMaximumBitRate-Enforcement-Indicator ::= NULL

UE-Capabilities-Info ::= SEQUENCE {
    hSDSCH-Physical-Layer-Category      INTEGER (1..64,...),
    iE-Extensions                       ProtocolExtensionContainer { { UE-Capabilities-Info-ExtIEs } }       OPTIONAL,
```

```
    ...
}

UE-Capabilities-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-LCRTDD-uplink-Physical-Channel-Capability        CRITICALITY ignore      EXTENSION LCRTDD-Uplink-Physical-Channel-Capability
    PRESENCE optional}|
    {ID id-number-Of-Supported-Carriers                     CRITICALITY reject      EXTENSION Number-Of-Supported-Carriers
    PRESENCE optional}|
    {ID id-MIMO-SFMode-Supported-For-HSPDSCHDualStream          CRITICALITY ignore      EXTENSION MIMO-SFMode-For-HSPDSCHDualStream
        PRESENCE optional}|
    {ID id-MultiCarrier-HSDSCH-Physical-Layer-Category      CRITICALITY ignore      EXTENSION LCRTDD-HSDSCH-Physical-Layer-Category        PRESENCE
optional}|
    {ID id-UE-TS0-CapabilityLCR     CRITICALITY ignore      EXTENSION UE-TS0-CapabilityLCR       PRESENCE optional},
    ...
}

UE-TS0-CapabilityLCR ::= ENUMERATED {
    tS0-Capable,
    tS0-Not-Capable
}

LCRTDD-HSDSCH-Physical-Layer-Category ::= INTEGER (1..64)

UE-DPCCH-burst1 ::= ENUMERATED {v1, v2, v5}
    -- Unit subframe

UE-DPCCH-burst2 ::= ENUMERATED {v1, v2, v5}
    -- Unit subframe

UE-DRX-Cycle ::= ENUMERATED {v4, v5, v8, v10, v16, v20}
    -- Unit subframe

UE-DRX-Grant-Monitoring ::= BOOLEAN
    -- true: applied, false: not applied

UE-DTX-Cycle1-2ms ::= ENUMERATED {v1, v4, v5, v8, v10, v16, v20}
    -- Unit subframe

UE-DTX-Cycle1-10ms ::= ENUMERATED {v1, v5, v10, v20}
    -- Unit subframe

UE-DTX-Cycle2-2ms ::= ENUMERATED {v4, v5, v8, v10, v16, v20, v32, v40, v64, v80, v128, v160}
    -- Unit subframe

UE-DTX-Cycle2-10ms ::= ENUMERATED {v5, v10, v20, v40, v80, v160}
    -- Unit subframe

UE-DTX-DRX-Offset ::= INTEGER (0..159)
    -- Unit subframe

UE-DTX-Long-Preamble ::= ENUMERATED {v2, v4, v15}
    -- Units of slots
```

```
UEIdentity                  ::= CHOICE {
    imsi        IMSI,
    imei        IMEI,
    imeisv      IMEISV,
    ...
}

UEMeasurementHysteresisTime ::= INTEGER (0..15)
    -- Unit dB
    -- Range 0..7.5 dB
    -- Step 0.5 dB

UEMeasurementParameterModAllow ::= ENUMERATED {
    parameterModificationAllowed,
    ...
}

UEMeasurementReportCharacteristics ::= CHOICE {
    periodic            UEMeasurementReportCharacteristicsPeriodic,
    event1h             UEMeasurementReportCharacteristicsEvent1h,
    event1i             UEMeasurementReportCharacteristicsEvent1i,
    event6a             UEMeasurementReportCharacteristicsEvent6a,
    event6b             UEMeasurementReportCharacteristicsEvent6b,
    event6c             UEMeasurementReportCharacteristicsEvent6c,
    event6d             UEMeasurementReportCharacteristicsEvent6d,
    ...,
    extension-ReportCharacteristics     UEMeasurementReportCharacteristics-Extension
}

UEMeasurementReportCharacteristicsEvent1h ::= SEQUENCE {
    uEMeasurementTreshold       UEMeasurementThreshold,
    uEMeasurementTimeToTrigger  UEMeasurementTimeToTrigger,
    uEMeasurementHysteresisTime UEMeasurementHysteresisTime,
    iE-Extensions               ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent1h-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent1h-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent1i ::= SEQUENCE {
    uEMeasurementTreshold       UEMeasurementThreshold,
    uEMeasurementTimeToTrigger  UEMeasurementTimeToTrigger,
    uEMeasurementHysteresisTime UEMeasurementHysteresisTime,
    iE-Extensions               ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent1i-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent1i-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
UEMeasurementReportCharacteristicsEvent6a ::= SEQUENCE {
    uEMeasurementTreshold       UEMeasurementThreshold,
    uEMeasurementTimeToTrigger  UEMeasurementTimeToTrigger,
    iE-Extensions               ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6a-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6a-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6b ::= SEQUENCE {
    uEMeasurementTreshold       UEMeasurementThreshold,
    uEMeasurementTimeToTrigger  UEMeasurementTimeToTrigger,
    iE-Extensions               ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6b-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6b-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6c ::= SEQUENCE {
    uEMeasurementTimeToTrigger  UEMeasurementTimeToTrigger,
    iE-Extensions               ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6c-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6c-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6d ::= SEQUENCE {
    uEMeasurementTimeToTrigger  UEMeasurementTimeToTrigger,
    iE-Extensions               ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6d-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6d-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsPeriodic ::= SEQUENCE {
    amountofReporting       UEMeasurementReportCharacteristicsPeriodicAmountofReporting,
    reportingInterval       UEMeasurementReportCharacteristicsPeriodicReportingInterval,
    iE-Extensions           ProtocolExtensionContainer { {UEMeasurementReportCharacteristicsPeriodic-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsPeriodicAmountofReporting::= ENUMERATED {
    r1,
    r2,
    r4,
    r8,
```

```
    r16,
    r32,
    r64,
    rInfinity
}

UEMeasurementReportCharacteristicsPeriodicReportingInterval::= ENUMERATED {
    r250,
    r500,
    r1000,
    r2000,
    r3000,
    r4000,
    r6000,
    r8000,
    r12000,
    r16000,
    r20000,
    r24000,
    r28000,
    r32000,
    r64000
}

UEMeasurementReportCharacteristicsPeriodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristics-Extension    ::= ProtocolIE-Single-Container {{ UEMeasurementReportCharacteristics-ExtensionIE }}

UEMeasurementReportCharacteristics-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}

UEMeasurementThreshold          ::= CHOICE {
    timeslotISCP                    UEMeasurementThresholdDLTimeslotISCP,
    uETransmitPower                 UEMeasurementThresholdUETransmitPower,
    ...,
    extension-UEMeasurementThreshold    UEMeasurementThreshold-Extension
}

UEMeasurementThresholdDLTimeslotISCP ::=    INTEGER(-115..-25)

UEMeasurementThresholdUETransmitPower ::=   INTEGER(-50..33)

UEMeasurementThreshold-Extension    ::= ProtocolIE-Single-Container {{ UEMeasurementThreshold-ExtensionIE }}

UEMeasurementThreshold-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}

UEMeasurementTimeslotInfoHCR::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementTimeslotInfoHCR-IEs

UEMeasurementTimeslotInfoHCR-IEs ::= SEQUENCE {
```

```
    timeSlot                        TimeSlot,
    burstType                       UEMeasurementTimeslotInfoHCRBurstType,
    iE-Extensions                   ProtocolExtensionContainer { { UEMeasurementTimeslotInfoHCR-IEs-ExtIEs} }    OPTIONAL,
    ...
}

UEMeasurementTimeslotInfoHCRBurstType ::= ENUMERATED {
    type1,
    type2,
    type3,
    ...
}

UEMeasurementTimeslotInfoHCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementTimeslotInfoLCR::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementTimeslotInfoLCR-IEs

UEMeasurementTimeslotInfoLCR-IEs ::= SEQUENCE {
    timeSlot                        TimeSlotLCR,
    iE-Extensions                   ProtocolExtensionContainer { { UEMeasurementTimeslotInfoLCR-IEs-ExtIEs} }    OPTIONAL,
    ...

}

UEMeasurementTimeslotInfoLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementTimeslotInfo768::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementTimeslotInfo768-IEs

UEMeasurementTimeslotInfo768-IEs ::= SEQUENCE {
    timeSlot                        TimeSlot,
    burstType                       UEMeasurementTimeslotInfo768BurstType,
    iE-Extensions                   ProtocolExtensionContainer { { UEMeasurementTimeslotInfo768-IEs-ExtIEs} }    OPTIONAL,
    ...
}

UEMeasurementTimeslotInfo768BurstType ::= ENUMERATED {
    type1,
    type2,
    type3,
    ...
}

UEMeasurementTimeslotInfo768-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementTimeToTrigger ::= ENUMERATED {
    r0,
    r10,
    r20,
```

```
    r40,
    r60,
    r80,
    r100,
    r120,
    r160,
    r200,
    r240,
    r320,
    r640,
    r1280,
    r2560,
    r5000
}

UEMeasurementType ::= ENUMERATED {
    primary-CCPCH-RSCP,
    dL-Timeslot-ISCP,
    uE-Transmitted-power,
    ...
}

UEMeasurementValue ::= CHOICE {
    uE-Transmitted-Power        UE-MeasurementValue-UE-Transmitted-Power,
    primary-CCPCH-RSCP          UE-MeasurementValue-Primary-CCPCH-RSCP,
    dL-Timeslot-ISCP            UE-MeasurementValue-DL-Timeslot-ISCP,
    ...,
    extension-UEMeasurementValue        UEMeasurementValue-Extension
}

UE-MeasurementValue-UE-Transmitted-Power ::= SEQUENCE {
    uEMeasurementTransmittedPowerListHCR        UEMeasurementValueTransmittedPowerListHCR   OPTIONAL,
-- Mandatory for 3.84Mcps TDD, Not applicable for 1.28Mcps TDD or 7.68Mcps TDD
    uEMeasurementTransmittedPowerListLCR        UEMeasurementValueTransmittedPowerListLCR   OPTIONAL,
-- Mandatory for 1.28Mcps TDD, Not applicable for 3.84Mcps TDD or 7.68Mcps TDD
    iE-Extensions                               ProtocolExtensionContainer { { UE-MeasurementValue-UE-Transmitted-Power-ExtIEs} }    OPTIONAL,
    ...
}

UE-MeasurementValue-UE-Transmitted-Power-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UEMeasurementValueTransmittedPowerList768           CRITICALITY ignore  EXTENSION UEMeasurementValueTransmittedPowerList768
    PRESENCE optional },
    ...
}

UEMeasurementValueTransmittedPowerListHCR   ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTransmittedPowerListHCR-IEs

UEMeasurementValueTransmittedPowerListHCR-IEs ::= SEQUENCE {
    timeSlot                        TimeSlot,
    uETransmitPower                 INTEGER(0..104),
    -- mapping according to [24],values 0..20 not used
    iE-Extensions                               ProtocolExtensionContainer { { UEMeasurementValueTransmittedPowerListHCR-IEs-ExtIEs} }
    OPTIONAL,
    ...
```

```
}

UEMeasurementValueTransmittedPowerListHCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UEMeasurementValueTransmittedPowerListLCR   ::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementValueTransmittedPowerListLCR-IEs

UEMeasurementValueTransmittedPowerListLCR-IEs ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    uETransmitPower                 INTEGER(0..104),
    -- mapping according to [24],values 0..20 not used
    iE-Extensions                               ProtocolExtensionContainer { { UEMeasurementValueTransmittedPowerListLCR-IEs-ExtIEs} }
    OPTIONAL,
    ...

}
UEMeasurementValueTransmittedPowerListLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementValueTransmittedPowerList768   ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTransmittedPowerList768-IEs

UEMeasurementValueTransmittedPowerList768-IEs ::= SEQUENCE {
    timeSlot                        TimeSlot,
    uETransmitPower                 INTEGER(0..104),
    -- mapping according to [24],values 0..20 not used
    iE-Extensions                               ProtocolExtensionContainer { { UEMeasurementValueTransmittedPowerList768-IEs-ExtIEs} }
    OPTIONAL,
    ...

}

UEMeasurementValueTransmittedPowerList768-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UE-MeasurementValue-Primary-CCPCH-RSCP::= SEQUENCE {
    primaryCCPCH-RSCP                   PrimaryCCPCH-RSCP               OPTIONAL,
    primaryCCPCH-RSCP-Delta             PrimaryCCPCH-RSCP-Delta         OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { UE-MeasurementValue-Primary-CCPCH-RSCP-ExtIEs} }     OPTIONAL,
    ...
}

UE-MeasurementValue-Primary-CCPCH-RSCP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UE-MeasurementValue-DL-Timeslot-ISCP ::= SEQUENCE {
    uEMeasurementTimeslotISCPListHCR        UEMeasurementValueTimeslotISCPListHCR   OPTIONAL,
-- Mandatory for 3.84Mcps TDD, Not applicable for 1.28Mcps TDD or 7.68Mcps TDD
    uEMeasurementTimeslotISCPListLCR        UEMeasurementValueTimeslotISCPListLCR   OPTIONAL,
-- Mandatory for 1.28Mcps TDD, Not applicable for 3.84Mcps TDD or 7.68Mcps TDD
    iE-Extensions                               ProtocolExtensionContainer { { UE-MeasurementValue-DL-Timeslot-ISCP-ExtIEs} }     OPTIONAL,
```

```
    ...
}

UE-MeasurementValue-DL-Timeslot-ISCP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UEMeasurementValueTimeslotISCPList768           CRITICALITY ignore  EXTENSION UEMeasurementValueTimeslotISCPList768      PRESENCE
optional },
    ...
}

UEMeasurementValueTimeslotISCPListHCR   ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTimeslotISCPListHCR-IEs

UEMeasurementValueTimeslotISCPListHCR-IEs ::= SEQUENCE {
    timeSlot                        TimeSlot,
    dL-TimeslotISCP                 DL-TimeslotISCP,
    iE-Extensions                   ProtocolExtensionContainer { { UEMeasurementValueTimeslotISCPListHCR-IEs-ExtIEs} }   OPTIONAL,
    ...

}
UEMeasurementValueTimeslotISCPListHCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UEMeasurementValueTimeslotISCPListLCR   ::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementValueTimeslotISCPListLCR-IEs

UEMeasurementValueTimeslotISCPListLCR-IEs ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    dL-TimeslotISCP                 DL-TimeslotISCP,
    iE-Extensions                   ProtocolExtensionContainer { { UEMeasurementValueTimeslotISCPListLCR-IEs-ExtIEs} }   OPTIONAL,
    ...

}
UEMeasurementValueTimeslotISCPListLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementValueTimeslotISCPList768   ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTimeslotISCPList768-IEs

UEMeasurementValueTimeslotISCPList768-IEs ::= SEQUENCE {
    timeSlot                        TimeSlot,
    dL-TimeslotISCP                 DL-TimeslotISCP,
    iE-Extensions                   ProtocolExtensionContainer { { UEMeasurementValueTimeslotISCPList768-IEs-ExtIEs} }   OPTIONAL,
    ...

}
UEMeasurementValueTimeslotISCPList768-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementValue-Extension    ::= ProtocolIE-Single-Container {{ UEMeasurementValue-ExtensionIE }}

UEMeasurementValue-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}

UEMeasurementValueInformation ::= CHOICE {
```

```
    measurementAvailable        UEMeasurementValueInformationAvailable,
    measurementnotAvailable     UEMeasurementValueInformationnotAvailable
}

UEMeasurementValueInformationAvailable::= SEQUENCE {
    uEmeasurementValue          UEMeasurementValue,
    ie-Extensions               ProtocolExtensionContainer { { UEMeasurementValueInformationAvailableItem-ExtIEs} }   OPTIONAL,
    ...
}

UEMeasurementValueInformationAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementValueInformationnotAvailable ::= NULL

UE-SupportIndicatorExtension ::= BIT STRING (SIZE (32))
-- First bit: Different HS-SCCH In Consecutive TTIs Support Indicator
-- Second bit: HS-SCCH orders in HS-SCCH-less Operation Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

UE-State ::= CHOICE {
    cell-fach-pch                                       Cell-Fach-Pch-State,
    ura-pch                                             Ura-Pch-State,
    ...
}



Cell-Fach-Pch-State ::= SEQUENCE {
    d-RNTI                          D-RNTI,
    iE-Extensions                   ProtocolExtensionContainer  { { Cell-Fach-Pch-State-ExtIEs} }   OPTIONAL,
    ...
}

Cell-Fach-Pch-State-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Ura-Pch-State ::= SEQUENCE {
    srnc-id                         RNC-ID,
    ura-id                          URA-ID,
    iE-Extensions                   ProtocolExtensionContainer  { { Ura-Pch-State-ExtIEs} }     OPTIONAL,
    ...
}

Ura-Pch-State-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-SRNC-ID                    CRITICALITY reject  EXTENSION Extended-RNC-ID             PRESENCE optional },
    ...
}

UL-Delta-T2TP ::= INTEGER (0..6,...)

UL-DL-mode ::= ENUMERATED {
```

```
    ul-only,
    dl-only,
    both-ul-and-dl
}

UL-DPDCHIndicatorEDCH ::= ENUMERATED {
    uL-DPDCH-present,
    uL-DPDCH-not-present}

UL-Timeslot-Information::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem

UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType       MidambleShiftAndBurstType,
    tFCI-Presence                   TFCI-Presence,
    uL-Code-Information             TDD-UL-Code-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeslotLCR-InformationItem

UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    tFCI-Presence                       TFCI-Presence,
    uL-Code-LCR-InformationList         TDD-UL-Code-LCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

UL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-PLCCH-Information-UL-TimeslotLCR-Info   CRITICALITY ignore      EXTENSION  PLCCHinformation    PRESENCE optional },
    ...
}
PLCCHinformation ::= SEQUENCE {
    tDD-ChannelisationCode              TDD-ChannelisationCode,
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    sequenceNumber                      PLCCHsequenceNumber,
    iE-Extensions                       ProtocolExtensionContainer { { PLCCHinformation-ExtIEs} }               OPTIONAL,
    ...
}

PLCCHinformation-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-Information768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem768
```

```
UL-Timeslot-InformationItem768 ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768,
    tFCI-Presence                   TFCI-Presence,
    uL-Code-Information768              TDD-UL-Code-Information768,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-TimeSlot-ISCP-InfoItem

UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    uL-TimeslotISCP             UL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
    ...
}

UL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF    UL-TimeSlot-ISCP-LCR-InfoItem

UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    iSCP                            UL-Timeslot-ISCP-Value,
    iE-Extensions                   ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }    OPTIONAL,
    ...
 }

UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-ISCP-Value ::= UL-TimeslotISCP

UL-Timeslot-ISCP-Value-IncrDecrThres ::= INTEGER(0..126)
-- Unit dB. Step 0.5dB
-- e.g. Value 100 means 50dB

UL-TimingAdvanceCtrl-LCR ::= SEQUENCE {
    sync-UL-codes-bitmap                        BIT STRING (SIZE(8)),
    fPACH-info                                  FPACH-Information,
    prxUpPCHdes                                 INTEGER (-120 .. -58, ...),
    syncUL-procParameter                        SYNC-UL-ProcParameters,
    mMax                                        INTEGER (1..32),
    ...
    }
```

```
Uplink-Compressed-Mode-Method   ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
    ...
}

UL-SIR                  ::= INTEGER (-82..173)
-- The UL-SIR gives the UL-SIR in number of 0.1 dB steps.
-- E.g. Value 173 means 17.3 dB
-- Unit dB. Step 0.1 dB.

UC-ID ::= SEQUENCE {
    rNC-ID              RNC-ID,
    c-ID                C-ID,
    iE-Extensions           ProtocolExtensionContainer { {UC-ID-ExtIEs} } OPTIONAL,
    ...
}

UC-ID-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID     CRITICALITY reject      EXTENSION   Extended-RNC-ID PRESENCE optional},
    ...
}

UL-DPCCH-SlotFormat         ::= INTEGER (0..5,...)

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
    ...
}

UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
}

UL-ScramblingCode ::= SEQUENCE {
    ul-ScramblingCodeNumber     UL-ScramblingCodeNumber,
    ul-ScramblingCodeLength     UL-ScramblingCodeLength,
    iE-Extensions           ProtocolExtensionContainer { {UL-ScramblingCode-ExtIEs} } OPTIONAL
}

UL-ScramblingCode-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
}

UL-ScramblingCodeNumber         ::= INTEGER (0..16777215)

UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
```

```
    uL-Synchronisation-StepSize         UL-Synchronisation-StepSize,
    uL-Synchronisation-Frequency            UL-Synchronisation-Frequency,
    iE-Extensions                   ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }       OPTIONAL,
    ...
}

UL-Synchronisation-Parameters-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Synchronisation-StepSize ::= INTEGER (1..8)

UL-Synchronisation-Frequency ::= INTEGER (1..8)

UL-TimeslotISCP         ::= INTEGER (0..127)
-- According to mapping in [14]

UPPCHPositionLCR ::= INTEGER (0..127)

UpPTSInterferenceValue  ::= INTEGER (0..127,...)

Unidirectional-DCH-Indicator    ::= ENUMERATED {
    downlink-DCH-only,
    uplink-DCH-only
}

URA-ID                  ::= INTEGER (0..65535)

URA-Information ::= SEQUENCE {
    uRA-ID                              URA-ID,
    multipleURAsIndicator               MultipleURAsIndicator,
    rNCsWithCellsInTheAccessedURA-List  RNCsWithCellsInTheAccessedURA-List  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {URA-Information-ExtIEs} } OPTIONAL,
    ...
}

URA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID                     CRITICALITY reject  EXTENSION Extended-RNC-ID           PRESENCE optional },
    ...
}

RNCsWithCellsInTheAccessedURA-List ::= SEQUENCE (SIZE (1..maxRNCinURA-1)) OF RNCsWithCellsInTheAccessedURA-Item

RNCsWithCellsInTheAccessedURA-Item ::= SEQUENCE {
    rNC-ID                          RNC-ID,
    iE-Extensions                   ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-Item-ExtIEs} } OPTIONAL,
    ...
}

RNCsWithCellsInTheAccessedURA-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-ID                 ::= INTEGER (0..255)
```

```
USCH-Information ::=  SEQUENCE (SIZE (1..maxNoOfUSCHs)) OF USCH-InformationItem

USCH-InformationItem ::= SEQUENCE {
    uSCH-ID                             USCH-ID,
    ul-CCTrCH-ID                        CCTrCH-ID,
    trChSourceStatisticsDescriptor      TrCH-SrcStatisticsDescr,
    transportFormatSet                  TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    rb-Info                             RB-Info,
    iE-Extensions                       ProtocolExtensionContainer { {USCH-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

USCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass        CRITICALITY ignore  EXTENSION TrafficClass      PRESENCE mandatory   }|
    { ID id-BindingID                       CRITICALITY ignore      EXTENSION   BindingID   PRESENCE               optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress     PRESENCE    optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                          CRITICALITY ignore      EXTENSION   TnlQos                    PRESENCE optional },
    ...
}

User-Plane-Congestion-Fields-Inclusion      ::= ENUMERATED { shall-be-included }

Uu-ActivationState ::= ENUMERATED {
    activated,
    de-activated,
    ...
}


-- V
-- W
-- X
-- Y
-- Z

END
```

## 9.3.5 Common Definitions

```
-- **************************************************************
--
-- Common definitions
--
-- **************************************************************

RNSAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-CommonDataTypes (3)  }
```

```
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- Extension constants
--
-- **************************************************************

maxPrivateIEs                                   INTEGER ::= 65535
maxProtocolExtensions                           INTEGER ::= 65535
maxProtocolIEs                                  INTEGER ::= 65535

-- **************************************************************
--
-- Common Data Types
--
-- **************************************************************

Criticality     ::= ENUMERATED { reject, ignore, notify }

Presence        ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID    ::= CHOICE {
    local               INTEGER (0.. maxPrivateIEs),
    global              OBJECT IDENTIFIER
}

ProcedureCode       ::= INTEGER (0..255)

ProcedureID ::= SEQUENCE {
    procedureCode           ProcedureCode,
    ddMode              ENUMERATED { tdd, fdd, common, ... }
}

ProtocolIE-ID       ::= INTEGER (0..maxProtocolIEs)

TransactionID       ::= CHOICE {
    shortTransActionId  INTEGER (0..127),
    longTransActionId   INTEGER (0..32767)
}

TriggeringMessage   ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome, outcome }

END
```

## 9.3.6 Constant Definitions

```
-- **************************************************************
--
-- Constant definitions
```

```
--
-- **************************************************************

RNSAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    ProcedureCode,
    ProtocolIE-ID
FROM RNSAP-CommonDataTypes;

-- **************************************************************
--
-- Elementary Procedures
--
-- **************************************************************

id-commonTransportChannelResourcesInitialisation            ProcedureCode ::= 0
id-commonTransportChannelResourcesRelease                   ProcedureCode ::= 1
id-compressedModeCommand                                    ProcedureCode ::= 2
id-downlinkPowerControl                                     ProcedureCode ::= 3
id-downlinkPowerTimeslotControl                             ProcedureCode ::= 4
id-downlinkSignallingTransfer                               ProcedureCode ::= 5
id-errorIndication                                          ProcedureCode ::= 6
id-dedicatedMeasurementFailure                              ProcedureCode ::= 7
id-dedicatedMeasurementInitiation                           ProcedureCode ::= 8
id-dedicatedMeasurementReporting                            ProcedureCode ::= 9
id-dedicatedMeasurementTermination                          ProcedureCode ::= 10
id-paging                                                   ProcedureCode ::= 11
id-physicalChannelReconfiguration                           ProcedureCode ::= 12
id-privateMessage                                           ProcedureCode ::= 13
id-radioLinkAddition                                        ProcedureCode ::= 14
id-radioLinkCongestion                                      ProcedureCode ::= 34
id-radioLinkDeletion                                        ProcedureCode ::= 15
id-radioLinkFailure                                         ProcedureCode ::= 16
id-radioLinkPreemption                                      ProcedureCode ::= 17
id-radioLinkRestoration                                     ProcedureCode ::= 18
id-radioLinkSetup                                           ProcedureCode ::= 19
id-relocationCommit                                         ProcedureCode ::= 20
id-synchronisedRadioLinkReconfigurationCancellation         ProcedureCode ::= 21
id-synchronisedRadioLinkReconfigurationCommit               ProcedureCode ::= 22
id-synchronisedRadioLinkReconfigurationPreparation          ProcedureCode ::= 23
id-unSynchronisedRadioLinkReconfiguration                   ProcedureCode ::= 24
id-uplinkSignallingTransfer                                 ProcedureCode ::= 25
id-commonMeasurementFailure                                 ProcedureCode ::= 26
id-commonMeasurementInitiation                              ProcedureCode ::= 27
id-commonMeasurementReporting                               ProcedureCode ::= 28
id-commonMeasurementTermination                             ProcedureCode ::= 29
id-informationExchangeFailure                               ProcedureCode ::= 30
```

```
id-informationExchangeInitiation                        ProcedureCode ::= 31
id-informationReporting                                 ProcedureCode ::= 32
id-informationExchangeTermination                       ProcedureCode ::= 33
id-reset                                                ProcedureCode ::= 35
id-radioLinkActivation                                  ProcedureCode ::= 36
id-gERANuplinkSignallingTransfer                        ProcedureCode ::= 37
id-radioLinkParameterUpdate                             ProcedureCode ::= 38
id-uEMeasurementFailure                                 ProcedureCode ::= 39
id-uEMeasurementInitiation                              ProcedureCode ::= 40
id-uEMeasurementReporting                               ProcedureCode ::= 41
id-uEMeasurementTermination                             ProcedureCode ::= 42
id-iurDeactivateTrace                                   ProcedureCode ::= 43
id-iurInvokeTrace                                       ProcedureCode ::= 44
id-mBMSAttach                                           ProcedureCode ::= 45
id-mBMSDetach                                           ProcedureCode ::= 46
id-directInformationTransfer                            ProcedureCode ::= 48
id-enhancedRelocation                                   ProcedureCode ::= 49
id-enhancedRelocationCancel                             ProcedureCode ::= 50
id-enhancedRelocationSignallingTransfer                 ProcedureCode ::= 51
id-enhancedRelocationRelease                            ProcedureCode ::= 52
id-mBSFNMCCHInformation                                 ProcedureCode ::= 53
id-secondaryULFrequencyReporting                        ProcedureCode ::= 54
id-secondaryULFrequencyUpdate                           ProcedureCode ::= 55

-- **************************************************************
--
-- Lists
--
-- **************************************************************

maxCellSIB11OrSIB12                     INTEGER ::= 32
maxCellsMeas                            INTEGER ::= 8
maxRateMatching                         INTEGER ::= 256
maxNoOfDSCHs                            INTEGER ::= 10
maxNoOfDSCHsLCR                         INTEGER ::= 10
maxNoOfRB                               INTEGER ::= 32
maxNoOfUSCHs                            INTEGER ::= 10
maxNoOfUSCHsLCR                         INTEGER ::= 10
maxNrOfTFCs                             INTEGER ::= 1024
maxNrOfTFs                              INTEGER ::= 32
maxNrOfCCTrCHs                          INTEGER ::= 16
maxNrOfCCTrCHsLCR                       INTEGER ::= 16
maxNrOfDCHs                             INTEGER ::= 128
maxNrOfDL-Codes                         INTEGER ::= 8
maxNrOfDPCHs                            INTEGER ::= 240
maxNrOfDPCHsPerRL-1                     INTEGER ::= 239 -- maxNrofCCTrCH*maxNrOfULTs-1
maxNrOfDPCHsLCR                         INTEGER ::= 240
maxNrOfDPCHsLCRPerRL-1                  INTEGER ::= 95  -- maxNrofCCTrCH*maxNrOfULTsLCR-1
maxNrOfDPCHs768                         INTEGER ::= 480
maxNrOfDPCHs768PerRL-1                  INTEGER ::= 479
maxNrOfErrors                           INTEGER ::= 256
maxNrOfMACcshSDU-Length                 INTEGER ::= 16
maxNrOfMBMSServices                     INTEGER ::= 128
maxNrOfActiveMBMSServices               INTEGER ::= 256
```

```
maxNrOfPoints                           INTEGER ::= 15
maxNrOfRLs                              INTEGER ::= 16
maxNrOfRLSets                           INTEGER ::= maxNrOfRLs
maxNrOfRLSets-1                         INTEGER ::= 15  -- maxNrOfRLSets - 1
maxNrOfRLs-1                            INTEGER ::= 15  -- maxNrOfRLs - 1
maxNrOfRLs-2                            INTEGER ::= 14  -- maxNrOfRLs - 2
maxNrOfUEs                              INTEGER ::= 4096
maxNrOfULTs                             INTEGER ::= 15
maxNrOfULTsLCR                          INTEGER ::= 6
maxNrOfDLTs                             INTEGER ::= 15
maxNrOfDLTsLCR                          INTEGER ::= 6
maxRNCinURA-1                           INTEGER ::= 15
maxTTI-Count                            INTEGER ::= 4
maxCTFC                                 INTEGER ::= 16777215
maxNrOfNeighbouringRNCs                 INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC              INTEGER ::= 256
maxNrOfGSMNeighboursPerRNC              INTEGER ::= 256
maxNrOfTDDNeighboursPerRNC              INTEGER ::= 256
maxNrOfFACHs                            INTEGER ::= 8
maxNrOfLCRTDDNeighboursPerRNC           INTEGER ::= 256
maxIBSEG                                INTEGER ::= 16
maxNrOfSCCPCHs                          INTEGER ::= 8
maxNrOfSCCPCHs768                       INTEGER ::= 16
maxTGPS                                 INTEGER ::= 6
maxNrOfTS                               INTEGER ::= 15
maxNrOfLevels                           INTEGER ::= 256
maxNrOfTsLCR                            INTEGER ::= 6
maxNoSat                                INTEGER ::= 16
maxNoGPSTypes                           INTEGER ::= 8
maxNrOfMeasNCell                        INTEGER ::= 96
maxNrOfMeasNCell-1                      INTEGER ::= 95  -- maxNrOfMeasNCell - 1
maxResetContext                         INTEGER ::= 250
maxResetContextGroup                    INTEGER ::= 32
maxNrOfHARQProc                         INTEGER ::= 8
maxNrOfHSSCCHCodes                      INTEGER ::= 4
maxNrOfHSSICHs                          INTEGER ::= 4
maxNrOfHSSICHs-1                        INTEGER ::= 3
maxNrOfMACdFlows                        INTEGER ::= 8
maxNrOfMACdFlows-1                      INTEGER ::= 7   -- maxNrOfMACdFlows - 1
maxNrOfMACdPDUSize                      INTEGER ::= 32
maxNrOfPDUIndexes                       INTEGER ::= 8
maxNrOfPDUIndexes-1                     INTEGER ::= 7   -- maxNrOfPDUIndexes - 1
maxNrOfPrioQueues                       INTEGER ::= 8
maxNrOfPrioQueues-1                     INTEGER ::= 7   -- maxNrOfPrioQueues - 1
maxNrOfSNAs                             INTEGER ::= 65536
maxNrOfSatAlmanac-maxNoSat              INTEGER ::= 16
maxNrOfGERANSI                          INTEGER ::= 8
maxNrOfInterfaces                       INTEGER ::= 16
maxNrofSigSeqERGHICH-1                  INTEGER ::= 39
maxNrOfCells                            INTEGER ::= 65536
maxNrOfAddFreq                          INTEGER ::= 8
maxNrOfCellsPerFreq                     INTEGER ::= 65536
maxNrOfEDCHMACdFlows-1                  INTEGER ::= 7
maxNrOfEDCH-HARQ-PO-QUANTSTEPs          INTEGER ::= 6
```

```
maxNrOfEDPCCH-PO-QUANTSTEPs             INTEGER ::= 8
maxNrOfEDCHHARQProcesses2msEDCH         INTEGER ::= 8
maxNrOfBits-MACe-PDU-non-scheduled      INTEGER ::= 19982
maxNrOfRefETFCIs                        INTEGER ::= 8
maxNrOfRefETFCI-PO-QUANTSTEPs           INTEGER ::= 29
maxNrOfEDCHMACdFlows                    INTEGER ::= 8
maxNoOfLogicalChannels                  INTEGER ::= 16 -- only maximum 15 can be used
maxNrOfRefBetas                         INTEGER ::= 8
maxNrOfEAGCHCodes                       INTEGER ::= 4
maxNrOfHS-DSCHTBSs                      INTEGER ::= 90
maxNrOfHS-DSCHTBSs-HS-SCCHless          INTEGER ::= 4
maxHS-PDSCHCodeNrComp-1                 INTEGER ::= 15
maxNrOfEHICHCodes                       INTEGER ::= 4
maxGANSSSat                             INTEGER ::= 64
maxNoGANSS                              INTEGER ::= 8
maxSgnType                              INTEGER ::= 8
maxNrOfBroadcastPLMNs                   INTEGER ::= 5
maxHSDPAFrequency                       INTEGER ::= 8
maxHSDPAFrequency-1                     INTEGER ::= 7
maxFrequencyinCell                      INTEGER ::= 12
maxFrequencyinCell-1                    INTEGER ::= 11
maxGANSSSatAlmanac                      INTEGER ::= 36
maxGANSSClockMod                        INTEGER ::= 4
maxNrOfEDCHRLs                          INTEGER ::= 4
maxEARFCN                               INTEGER ::= 65535
maxNrOfEUTRANeighboursPerRNC            INTEGER ::= 256
maxNrOfMCCHMessages                     INTEGER ::= 5
maxNrOfMBMSL3                           INTEGER ::= 64
maxNrOfEDCHMACdFlowsLCR                 INTEGER ::= 256
maxNrOfEDCHMACdFlowsLCR-1               INTEGER ::= 255
maxNrOfPreconfiguredNeighbours          INTEGER ::= 256
maxNrOfHSDSCH-1                         INTEGER ::= 32
maxNrOfHSDSCH                           INTEGER ::= 33
maxGANSS-1                              INTEGER ::= 7
maxlengthMBMSconcatservlists            INTEGER ::= 96
maxNoOfTBSs-Mapping-HS-DSCH-SPS         INTEGER ::= 4
maxNoOfTBSs-Mapping-HS-DSCH-SPS-1       INTEGER ::= 3
maxNoOfHS-DSCH-TBSsLCR                  INTEGER ::= 64
maxNoOfRepetition-Period-LCR            INTEGER ::= 4
maxNoOfRepetitionPeriod-SPS-LCR-1       INTEGER ::= 3
maxNoOf-HS-SICH-SPS                     INTEGER ::= 4
maxNoOf-HS-SICH-SPS-1                   INTEGER ::= 3
maxNoOfNon-HS-SCCH-Assosiated-HS-SICH   INTEGER ::= 4
maxNrOfEDCH-1                           INTEGER ::= 32
maxNrOfDCHMeasurementOccasionPatternSequence    INTEGER ::= 6


-- **************************************************************
--
-- IEs
--
-- **************************************************************
```

```
id-AllowedQueuingTime                                          ProtocolIE-ID ::= 4
id-Allowed-Rate-Information                                    ProtocolIE-ID ::= 42
id-AntennaColocationIndicator                                  ProtocolIE-ID ::= 309
id-BindingID                                                   ProtocolIE-ID ::= 5
id-C-ID                                                        ProtocolIE-ID ::= 6
id-C-RNTI                                                      ProtocolIE-ID ::= 7
id-Cell-Capacity-Class-Value                                   ProtocolIE-ID ::= 303
id-CFN                                                         ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier                                      ProtocolIE-ID ::= 9
id-CN-PS-DomainIdentifier                                      ProtocolIE-ID ::= 10
id-Cause                                                       ProtocolIE-ID ::= 11
id-CoverageIndicator                                           ProtocolIE-ID ::= 310
id-CriticalityDiagnostics                                      ProtocolIE-ID ::= 20
id-ContextInfoItem-Reset                                       ProtocolIE-ID ::= 211
id-ContextGroupInfoItem-Reset                                  ProtocolIE-ID ::= 515
id-D-RNTI                                                      ProtocolIE-ID ::= 21
id-D-RNTI-ReleaseIndication                                    ProtocolIE-ID ::= 22
id-DCHs-to-Add-FDD                                             ProtocolIE-ID ::= 26
id-DCHs-to-Add-TDD                                             ProtocolIE-ID ::= 27
id-DCH-DeleteList-RL-ReconfPrepFDD                             ProtocolIE-ID ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD                             ProtocolIE-ID ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD                             ProtocolIE-ID ::= 32
id-DCH-DeleteList-RL-ReconfRqstTDD                             ProtocolIE-ID ::= 33
id-DCH-FDD-Information                                         ProtocolIE-ID ::= 34
id-DCH-TDD-Information                                         ProtocolIE-ID ::= 35
id-FDD-DCHs-to-Modify                                          ProtocolIE-ID ::= 39
id-TDD-DCHs-to-Modify                                          ProtocolIE-ID ::= 40
id-DCH-InformationResponse                                     ProtocolIE-ID ::= 43
id-DCH-Rate-InformationItem-RL-CongestInd                      ProtocolIE-ID ::= 38
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD               ProtocolIE-ID ::= 44
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD               ProtocolIE-ID ::= 45
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD            ProtocolIE-ID ::= 46
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD                   ProtocolIE-ID ::= 47
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD              ProtocolIE-ID ::= 48
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD               ProtocolIE-ID ::= 49
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD                  ProtocolIE-ID ::= 50
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD               ProtocolIE-ID ::= 51
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD            ProtocolIE-ID ::= 52
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD                   ProtocolIE-ID ::= 53
id-FDD-DL-CodeInformation                                      ProtocolIE-ID ::= 54
id-DL-DPCH-Information-RL-ReconfPrepFDD                        ProtocolIE-ID ::= 59
id-DL-DPCH-Information-RL-SetupRqstFDD                         ProtocolIE-ID ::= 60
id-DL-DPCH-Information-RL-ReconfRqstFDD                        ProtocolIE-ID ::= 61
id-DL-DPCH-InformationItem-PhyChReconfRqstTDD                  ProtocolIE-ID ::= 62
id-DL-DPCH-InformationItem-RL-AdditionRspTDD                   ProtocolIE-ID ::= 63
id-DL-DPCH-InformationItem-RL-SetupRspTDD                      ProtocolIE-ID ::= 64
id-DL-DPCH-TimingAdjustment                                    ProtocolIE-ID ::= 278
id-DLReferencePower                                            ProtocolIE-ID ::= 67
id-DLReferencePowerList-DL-PC-Rqst                             ProtocolIE-ID ::= 68
id-DL-ReferencePowerInformation-DL-PC-Rqst                     ProtocolIE-ID ::= 69
id-DPC-Mode                                                    ProtocolIE-ID ::= 12
id-DRXCycleLengthCoefficient                                   ProtocolIE-ID ::= 70
id-DedicatedMeasurementObjectType-DM-Fail-Ind                  ProtocolIE-ID ::= 470
id-DedicatedMeasurementObjectType-DM-Fail                      ProtocolIE-ID ::= 471
```

```
id-DedicatedMeasurementObjectType-DM-Rprt                    ProtocolIE-ID ::= 71
id-DedicatedMeasurementObjectType-DM-Rqst                    ProtocolIE-ID ::= 72
id-DedicatedMeasurementObjectType-DM-Rsp                     ProtocolIE-ID ::= 73
id-DedicatedMeasurementType                                  ProtocolIE-ID ::= 74
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD         ProtocolIE-ID ::= 82
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD         ProtocolIE-ID ::= 83
id-Guaranteed-Rate-Information                               ProtocolIE-ID ::= 41
id-IMSI                                                      ProtocolIE-ID ::= 84
id-HCS-Prio                                                  ProtocolIE-ID ::= 311
id-L3-Information                                            ProtocolIE-ID ::= 85
id-AdjustmentPeriod                                          ProtocolIE-ID ::= 90
id-MaxAdjustmentStep                                         ProtocolIE-ID ::= 91
id-MeasurementFilterCoefficient                              ProtocolIE-ID ::= 92
id-MessageStructure                                          ProtocolIE-ID ::= 57
id-MeasurementID                                             ProtocolIE-ID ::= 93
id-Neighbouring-GSM-CellInformation                          ProtocolIE-ID ::= 13
id-Neighbouring-UMTS-CellInformationItem                     ProtocolIE-ID ::= 95
id-NRT-Load-Information-Value                                ProtocolIE-ID ::= 305
id-NRT-Load-Information-Value-IncrDecrThres                  ProtocolIE-ID ::= 306
id-PagingArea-PagingRqst                                     ProtocolIE-ID ::= 102
id-FACH-FlowControlInformation                               ProtocolIE-ID ::= 103
id-PartialReportingIndicator                                 ProtocolIE-ID ::= 472
id-Permanent-NAS-UE-Identity                                 ProtocolIE-ID ::= 17
id-PowerAdjustmentType                                       ProtocolIE-ID ::= 107
id-RANAP-RelocationInformation                               ProtocolIE-ID ::= 109
id-RL-Information-PhyChReconfRqstFDD                         ProtocolIE-ID ::= 110
id-RL-Information-PhyChReconfRqstTDD                         ProtocolIE-ID ::= 111
id-RL-Information-RL-AdditionRqstFDD                         ProtocolIE-ID ::= 112
id-RL-Information-RL-AdditionRqstTDD                         ProtocolIE-ID ::= 113
id-RL-Information-RL-DeletionRqst                            ProtocolIE-ID ::= 114
id-RL-Information-RL-FailureInd                              ProtocolIE-ID ::= 115
id-RL-Information-RL-ReconfPrepFDD                           ProtocolIE-ID ::= 116
id-RL-Information-RL-RestoreInd                              ProtocolIE-ID ::= 117
id-RL-Information-RL-SetupRqstFDD                            ProtocolIE-ID ::= 118
id-RL-Information-RL-SetupRqstTDD                            ProtocolIE-ID ::= 119
id-RL-InformationItem-RL-CongestInd                          ProtocolIE-ID ::= 55
id-RL-InformationItem-DM-Rprt                                ProtocolIE-ID ::= 120
id-RL-InformationItem-DM-Rqst                                ProtocolIE-ID ::= 121
id-RL-InformationItem-DM-Rsp                                 ProtocolIE-ID ::= 122
id-RL-InformationItem-RL-PreemptRequiredInd                  ProtocolIE-ID ::= 2
id-RL-InformationItem-RL-SetupRqstFDD                        ProtocolIE-ID ::= 123
id-RL-InformationList-RL-CongestInd                          ProtocolIE-ID ::= 56
id-RL-InformationList-RL-AdditionRqstFDD                     ProtocolIE-ID ::= 124
id-RL-InformationList-RL-DeletionRqst                        ProtocolIE-ID ::= 125
id-RL-InformationList-RL-PreemptRequiredInd                  ProtocolIE-ID ::= 1
id-RL-InformationList-RL-ReconfPrepFDD                       ProtocolIE-ID ::= 126
id-RL-InformationResponse-RL-AdditionRspTDD                  ProtocolIE-ID ::= 127
id-RL-InformationResponse-RL-ReconfReadyTDD                  ProtocolIE-ID ::= 128
id-RL-InformationResponse-RL-SetupRspTDD                     ProtocolIE-ID ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD              ProtocolIE-ID ::= 130
id-RL-InformationResponseItem-RL-ReconfReadyFDD              ProtocolIE-ID ::= 131
id-RL-InformationResponseItem-RL-ReconfRspFDD                ProtocolIE-ID ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD                 ProtocolIE-ID ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD              ProtocolIE-ID ::= 134
```

```
id-RL-InformationResponseList-RL-ReconfReadyFDD                    ProtocolIE-ID ::= 135
id-RL-InformationResponseList-RL-ReconfRspFDD                      ProtocolIE-ID ::= 136
id-RL-InformationResponse-RL-ReconfRspTDD                          ProtocolIE-ID ::= 28
id-RL-InformationResponseList-RL-SetupRspFDD                       ProtocolIE-ID ::= 137
id-RL-ReconfigurationFailure-RL-ReconfFail                         ProtocolIE-ID ::= 141
id-RL-Set-InformationItem-DM-Rprt                                  ProtocolIE-ID ::= 143
id-RL-Set-InformationItem-DM-Rqst                                  ProtocolIE-ID ::= 144
id-RL-Set-InformationItem-DM-Rsp                                   ProtocolIE-ID ::= 145
id-RL-Set-Information-RL-FailureInd                                ProtocolIE-ID ::= 146
id-RL-Set-Information-RL-RestoreInd                                ProtocolIE-ID ::= 147
id-RL-Set-Successful-InformationItem-DM-Fail                       ProtocolIE-ID ::= 473
id-RL-Set-Unsuccessful-InformationItem-DM-Fail                     ProtocolIE-ID ::= 474
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind                 ProtocolIE-ID ::= 475
id-RL-Successful-InformationItem-DM-Fail                           ProtocolIE-ID ::= 476
id-RL-Unsuccessful-InformationItem-DM-Fail                         ProtocolIE-ID ::= 477
id-RL-Unsuccessful-InformationItem-DM-Fail-Ind                     ProtocolIE-ID ::= 478
id-ReportCharacteristics                                           ProtocolIE-ID ::= 152
id-Reporting-Object-RL-FailureInd                                  ProtocolIE-ID ::= 153
id-Reporing-Object-RL-RestoreInd                                   ProtocolIE-ID ::= 154
id-RT-Load-Value                                                   ProtocolIE-ID ::= 307
id-RT-Load-Value-IncrDecrThres                                     ProtocolIE-ID ::= 308
id-S-RNTI                                                          ProtocolIE-ID ::= 155
id-ResetIndicator                                                  ProtocolIE-ID ::= 244
id-RNC-ID                                                          ProtocolIE-ID ::= 245
id-SAI                                                             ProtocolIE-ID ::= 156
id-SRNC-ID                                                         ProtocolIE-ID ::= 157
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD          ProtocolIE-ID ::= 159
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD             ProtocolIE-ID ::= 160
id-TransportBearerID                                               ProtocolIE-ID ::= 163
id-TransportBearerRequestIndicator                                 ProtocolIE-ID ::= 164
id-TransportLayerAddress                                           ProtocolIE-ID ::= 165
id-TypeOfError                                                     ProtocolIE-ID ::= 140
id-UC-ID                                                           ProtocolIE-ID ::= 166
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD                       ProtocolIE-ID ::= 167
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD                   ProtocolIE-ID ::= 169
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD                       ProtocolIE-ID ::= 171
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD                       ProtocolIE-ID ::= 172
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD                  ProtocolIE-ID ::= 173
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD                   ProtocolIE-ID ::= 174
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD                   ProtocolIE-ID ::= 175
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD                      ProtocolIE-ID ::= 176
id-UL-DPCH-Information-RL-ReconfPrepFDD                            ProtocolIE-ID ::= 177
id-UL-DPCH-Information-RL-ReconfRqstFDD                            ProtocolIE-ID ::= 178
id-UL-DPCH-Information-RL-SetupRqstFDD                             ProtocolIE-ID ::= 179
id-UL-DPCH-InformationItem-PhyChReconfRqstTDD                      ProtocolIE-ID ::= 180
id-UL-DPCH-InformationItem-RL-AdditionRspTDD                       ProtocolIE-ID ::= 181
id-UL-DPCH-InformationItem-RL-SetupRspTDD                          ProtocolIE-ID ::= 182
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD                  ProtocolIE-ID ::= 183
id-UL-SIRTarget                                                    ProtocolIE-ID ::= 184
id-URA-Information                                                 ProtocolIE-ID ::= 185
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD        ProtocolIE-ID ::= 188
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD           ProtocolIE-ID ::= 189
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD           ProtocolIE-ID ::= 190
id-Active-Pattern-Sequence-Information                             ProtocolIE-ID ::= 193
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id-CauseLevel-RL-AdditionFailureFDD                                 ProtocolIE-ID ::= 197
id-CauseLevel-RL-AdditionFailureTDD                                 ProtocolIE-ID ::= 198
id-CauseLevel-RL-ReconfFailure                                      ProtocolIE-ID ::= 199
id-CauseLevel-RL-SetupFailureFDD                                    ProtocolIE-ID ::= 200
id-CauseLevel-RL-SetupFailureTDD                                    ProtocolIE-ID ::= 201
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 205
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 206
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD                 ProtocolIE-ID ::= 207
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 208
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 209
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD                 ProtocolIE-ID ::= 210
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD                   ProtocolIE-ID ::= 212
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD                ProtocolIE-ID ::= 213
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD                ProtocolIE-ID ::= 214
id-DSCHs-to-Add-TDD                                                 ProtocolIE-ID ::= 215
id-Unused-ProtocolIE-ID-216                                         ProtocolIE-ID ::= 216
id-DSCH-DeleteList-RL-ReconfPrepTDD                                 ProtocolIE-ID ::= 217
id-Unused-ProtocolIE-ID-218                                         ProtocolIE-ID ::= 218
id-Unused-ProtocolIE-ID-219                                         ProtocolIE-ID ::= 219
id-DSCH-InformationListIE-RL-AdditionRspTDD                         ProtocolIE-ID ::= 220
id-DSCH-InformationListIEs-RL-SetupRspTDD                           ProtocolIE-ID ::= 221
id-DSCH-TDD-Information                                             ProtocolIE-ID ::= 222
id-Unused-ProtocolIE-ID-223                                         ProtocolIE-ID ::= 223
id-Unused-ProtocolIE-ID-226                                         ProtocolIE-ID ::= 226
id-DSCH-ModifyList-RL-ReconfPrepTDD                                 ProtocolIE-ID ::= 227
id-Unused-ProtocolIE-ID-228                                         ProtocolIE-ID ::= 228
id-Unused-ProtocolIE-ID-324                                         ProtocolIE-ID ::= 324
id-Unused-ProtocolIE-ID-229                                         ProtocolIE-ID ::= 229
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD                    ProtocolIE-ID ::= 230
id-Unused-ProtocolIE-ID-29                                          ProtocolIE-ID ::= 29
id-Unused-ProtocolIE-ID-225                                         ProtocolIE-ID ::= 225
id-GA-Cell                                                          ProtocolIE-ID ::= 232
id-GA-CellAdditionalShapes                                          ProtocolIE-ID ::= 3
id-Unused-ProtocolIE-ID-246                                         ProtocolIE-ID ::= 246
id-Transmission-Gap-Pattern-Sequence-Information                    ProtocolIE-ID ::= 255
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD                     ProtocolIE-ID ::= 256
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD                     ProtocolIE-ID ::= 257
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD                 ProtocolIE-ID ::= 258
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 259
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 260
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD                 ProtocolIE-ID ::= 261
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD                 ProtocolIE-ID ::= 262
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD                 ProtocolIE-ID ::= 263
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD                ProtocolIE-ID ::= 264
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD                ProtocolIE-ID ::= 265
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD         ProtocolIE-ID ::= 266
id-USCHs-to-Add                                                     ProtocolIE-ID ::= 267
id-USCH-DeleteList-RL-ReconfPrepTDD                                 ProtocolIE-ID ::= 268
id-USCH-InformationListIE-RL-AdditionRspTDD                         ProtocolIE-ID ::= 269
id-USCH-InformationListIEs-RL-SetupRspTDD                           ProtocolIE-ID ::= 270
id-USCH-Information                                                 ProtocolIE-ID ::= 271
id-USCH-ModifyList-RL-ReconfPrepTDD                                 ProtocolIE-ID ::= 272
id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD                    ProtocolIE-ID ::= 273
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id-UL-Physical-Channel-Information-RL-SetupRqstTDD                  ProtocolIE-ID ::= 275
id-ClosedLoopMode1-SupportIndicator                                 ProtocolIE-ID ::= 276
id-Unused-ProtocolIE-ID-277                                         ProtocolIE-ID ::= 277
id-STTD-SupportIndicator                                            ProtocolIE-ID ::= 279
id-CFNReportingIndicator                                            ProtocolIE-ID ::= 14
id-CNOriginatedPage-PagingRqst                                      ProtocolIE-ID ::= 23
id-InnerLoopDLPCStatus                                              ProtocolIE-ID ::= 24
id-PropagationDelay                                                 ProtocolIE-ID ::= 25
id-RxTimingDeviationForTA                                           ProtocolIE-ID ::= 36
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id-CCTrCH-InformationItem-RL-FailureInd                             ProtocolIE-ID ::= 15
id-CCTrCH-InformationItem-RL-RestoreInd                             ProtocolIE-ID ::= 16
id-CommonMeasurementAccuracy                                        ProtocolIE-ID ::= 280
id-CommonMeasurementObjectType-CM-Rprt                              ProtocolIE-ID ::= 281
id-CommonMeasurementObjectType-CM-Rqst                              ProtocolIE-ID ::= 282
id-CommonMeasurementObjectType-CM-Rsp                               ProtocolIE-ID ::= 283
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id-SFN                                                              ProtocolIE-ID ::= 285
id-SFNReportingIndicator                                            ProtocolIE-ID ::= 286
id-InformationExchangeID                                            ProtocolIE-ID ::= 287
id-InformationExchangeObjectType-InfEx-Rprt                         ProtocolIE-ID ::= 288
id-InformationExchangeObjectType-InfEx-Rqst                         ProtocolIE-ID ::= 289
id-InformationExchangeObjectType-InfEx-Rsp                          ProtocolIE-ID ::= 290
id-InformationReportCharacteristics                                 ProtocolIE-ID ::= 291
id-InformationType                                                  ProtocolIE-ID ::= 292
id-neighbouring-LCR-TDD-CellInformation                             ProtocolIE-ID ::= 58
id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD                 ProtocolIE-ID ::= 65
id-RL-LCR-InformationResponse-RL-SetupRspTDD                        ProtocolIE-ID ::= 66
id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD                   ProtocolIE-ID ::= 75
id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD                       ProtocolIE-ID ::= 76
id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD                   ProtocolIE-ID ::= 77
id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD                       ProtocolIE-ID ::= 78
id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD                       ProtocolIE-ID ::= 79
id-USCH-LCR-InformationListIEs-RL-SetupRspTDD                       ProtocolIE-ID ::= 80
id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD              ProtocolIE-ID ::= 81
id-RL-LCR-InformationResponse-RL-AdditionRspTDD                     ProtocolIE-ID ::= 86
id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD                ProtocolIE-ID ::= 87
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD                    ProtocolIE-ID ::= 88
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD                ProtocolIE-ID ::= 89
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD                    ProtocolIE-ID ::= 94
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD                    ProtocolIE-ID ::= 96
id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD                    ProtocolIE-ID ::= 97
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD               ProtocolIE-ID ::= 98
id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD          ProtocolIE-ID ::= 100
id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD               ProtocolIE-ID ::= 101
id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD          ProtocolIE-ID ::= 104
id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD               ProtocolIE-ID ::= 105
id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD               ProtocolIE-ID ::= 106
id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD                            ProtocolIE-ID ::= 138
id-TSTD-Support-Indicator-RL-SetupRqstTDD                           ProtocolIE-ID ::= 139
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id-OnModification                                                    ProtocolIE-ID ::= 235
id-Received-Total-Wideband-Power-Value                               ProtocolIE-ID ::= 236
id-Received-Total-Wideband-Power-Value-IncrDecrThres                 ProtocolIE-ID ::= 237
id-SFNSFNMeasurementThresholdInformation                             ProtocolIE-ID ::= 238
id-Transmitted-Carrier-Power-Value                                   ProtocolIE-ID ::= 239
id-Transmitted-Carrier-Power-Value-IncrDecrThres                     ProtocolIE-ID ::= 240
id-TUTRANGPSMeasurementThresholdInformation                          ProtocolIE-ID ::= 241
id-UL-Timeslot-ISCP-Value                                            ProtocolIE-ID ::= 242
id-UL-Timeslot-ISCP-Value-IncrDecrThres                              ProtocolIE-ID ::= 243
id-Rx-Timing-Deviation-Value-LCR                                     ProtocolIE-ID ::= 293
id-DPC-Mode-Change-SupportIndicator                                  ProtocolIE-ID ::= 19
id-Unused-ProtocolIE-ID-247                                          ProtocolIE-ID ::= 247
id-Unused-ProtocolIE-ID-295                                          ProtocolIE-ID ::= 295
id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD                                ProtocolIE-ID ::= 202
id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD                            ProtocolIE-ID ::= 203
id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 204
id-DSCH-RNTI                                                         ProtocolIE-ID ::= 249
id-DL-PowerBalancing-Information                                     ProtocolIE-ID ::= 296
id-DL-PowerBalancing-ActivationIndicator                             ProtocolIE-ID ::= 297
id-DL-PowerBalancing-UpdatedIndicator                                ProtocolIE-ID ::= 298
id-DL-ReferencePowerInformation                                      ProtocolIE-ID ::= 299
id-Enhanced-PrimaryCPICH-EcNo                                        ProtocolIE-ID ::= 224
id-IPDL-TDD-ParametersLCR                                            ProtocolIE-ID ::= 252
id-CellCapabilityContainer-FDD                                       ProtocolIE-ID ::= 300
id-CellCapabilityContainer-TDD                                       ProtocolIE-ID ::= 301
id-CellCapabilityContainer-TDD-LCR                                   ProtocolIE-ID ::= 302
id-RL-Specific-DCH-Info                                              ProtocolIE-ID ::= 317
id-RL-ReconfigurationRequestFDD-RL-InformationList                   ProtocolIE-ID ::= 318
id-RL-ReconfigurationRequestFDD-RL-Information-IEs                   ProtocolIE-ID ::= 319
id-RL-ReconfigurationRequestTDD-RL-Information                       ProtocolIE-ID ::= 321
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id-DelayedActivation                                                 ProtocolIE-ID ::= 312
id-DelayedActivationList-RL-ActivationCmdFDD                         ProtocolIE-ID ::= 313
id-DelayedActivationInformation-RL-ActivationCmdFDD                  ProtocolIE-ID ::= 314
id-DelayedActivationList-RL-ActivationCmdTDD                         ProtocolIE-ID ::= 315
id-DelayedActivationInformation-RL-ActivationCmdTDD                  ProtocolIE-ID ::= 316
id-neighbouringTDDCellMeasurementInformationLCR                      ProtocolIE-ID ::= 251
id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD               ProtocolIE-ID ::= 150
id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD           ProtocolIE-ID ::= 151
id-PrimCCPCH-RSCP-DL-PC-RqstTDD                                      ProtocolIE-ID ::= 451
id-HSDSCH-FDD-Information                                            ProtocolIE-ID ::= 452
id-HSDSCH-FDD-Information-Response                                   ProtocolIE-ID ::= 453
id-HSDSCH-FDD-Update-Information                                     ProtocolIE-ID ::= 466
id-HSDSCH-Information-to-Modify                                      ProtocolIE-ID ::= 456
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd       ProtocolIE-ID ::= 516
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd       ProtocolIE-ID ::= 517
id-HSDSCH-RNTI                                                       ProtocolIE-ID ::= 457
id-HSDSCH-TDD-Information                                            ProtocolIE-ID ::= 458
id-HSDSCH-TDD-Information-Response                                   ProtocolIE-ID ::= 459
id-HSDSCH-TDD-Update-Information                                     ProtocolIE-ID ::= 467
id-HSPDSCH-RL-ID                                                     ProtocolIE-ID ::= 463
id-HSDSCH-MACdFlows-to-Add                                           ProtocolIE-ID ::= 531
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id-Unused-ProtocolIE-ID-253                                            ProtocolIE-ID ::= 253
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id-TimeSlot-RL-SetupRspTDD                                             ProtocolIE-ID ::= 325
id-GERAN-Cell-Capability                                               ProtocolIE-ID ::= 468
id-GERAN-Classmark                                                     ProtocolIE-ID ::= 469
id-DSCH-InitialWindowSize                                              ProtocolIE-ID ::= 480
id-UL-Synchronisation-Parameters-LCR                                   ProtocolIE-ID ::= 464
id-SNA-Information                                                     ProtocolIE-ID ::= 479
id-MAChs-ResetIndicator                                                ProtocolIE-ID ::= 465
id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD          ProtocolIE-ID ::= 481
id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD          ProtocolIE-ID ::= 482
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD                          ProtocolIE-ID ::= 483
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD                        ProtocolIE-ID ::= 484
id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD                        ProtocolIE-ID ::= 485
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD                        ProtocolIE-ID ::= 486
id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD                        ProtocolIE-ID ::= 487
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD          ProtocolIE-ID ::= 488
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD       ProtocolIE-ID ::= 489
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD            ProtocolIE-ID ::= 490
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD         ProtocolIE-ID ::= 491
id-UL-TimingAdvanceCtrl-LCR                                            ProtocolIE-ID ::= 492
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD                 ProtocolIE-ID ::= 493
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD              ProtocolIE-ID ::= 494
id-HS-SICH-Reception-Quality                                           ProtocolIE-ID ::= 495
id-HS-SICH-Reception-Quality-Measurement-Value                         ProtocolIE-ID ::= 496
id-HSSICH-Info-DM-Rprt                                                 ProtocolIE-ID ::= 497
id-HSSICH-Info-DM-Rqst                                                 ProtocolIE-ID ::= 498
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id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD                              ProtocolIE-ID ::= 500
id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD                              ProtocolIE-ID ::= 501
id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD                           ProtocolIE-ID ::= 502
id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD                           ProtocolIE-ID ::= 503
id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD                           ProtocolIE-ID ::= 504
id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD                           ProtocolIE-ID ::= 505
id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ProtocolIE-ID ::= 506
id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ProtocolIE-ID ::= 507
id-DL-CCTrCH-InformationList-RL-ReconfRspTDD                           ProtocolIE-ID ::= 508
id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD                   ProtocolIE-ID ::= 509
id-Maximum-DL-Power-TimeslotLCR-InformationItem                        ProtocolIE-ID ::= 510
id-Minimum-DL-Power-TimeslotLCR-InformationItem                        ProtocolIE-ID ::= 511
id-TDD-Support-8PSK                                                    ProtocolIE-ID ::= 512
id-TDD-maxNrDLPhysicalchannels                                         ProtocolIE-ID ::= 513
id-ExtendedGSMCellIndividualOffset                                     ProtocolIE-ID ::= 514
id-RL-ParameterUpdateIndicationFDD-RL-InformationList                  ProtocolIE-ID ::= 518
id-Primary-CPICH-Usage-For-Channel-Estimation                          ProtocolIE-ID ::= 519
id-Secondary-CPICH-Information                                         ProtocolIE-ID ::= 520
id-Secondary-CPICH-Information-Change                                  ProtocolIE-ID ::= 521
id-Unused-ProtocolIE-ID-522                                            ProtocolIE-ID ::= 522
id-Unused-ProtocolIE-ID-523                                            ProtocolIE-ID ::= 523
id-RL-ParameterUpdateIndicationFDD-RL-Information-Item                 ProtocolIE-ID ::= 524
id-Phase-Reference-Update-Indicator                                    ProtocolIE-ID ::= 525
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id-RL-Information-RL-ReconfPrepTDD                              ProtocolIE-ID ::= 527
id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD            ProtocolIE-ID ::= 528
id-RL-ReconfigurationResponseTDD-RL-Information                 ProtocolIE-ID ::= 529
id-Satellite-Almanac-Information-ExtItem                        ProtocolIE-ID ::= 530
id-HSDSCH-Information-to-Modify-Unsynchronised                  ProtocolIE-ID ::= 533
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id-RTLoadValue                                                  ProtocolIE-ID ::= 535
id-NRTLoadInformationValue                                      ProtocolIE-ID ::= 536
id-CellPortionID                                                ProtocolIE-ID ::= 537
id-UpPTSInterferenceValue                                       ProtocolIE-ID ::= 538
id-PrimaryCCPCH-RSCP-Delta                                      ProtocolIE-ID ::= 539
id-UEMeasurementType                                            ProtocolIE-ID ::= 540
id-UEMeasurementTimeslotInfoHCR                                 ProtocolIE-ID ::= 541
id-UEMeasurementTimeslotInfoLCR                                 ProtocolIE-ID ::= 542
id-UEMeasurementReportCharacteristics                           ProtocolIE-ID ::= 543
id-UEMeasurementParameterModAllow                               ProtocolIE-ID ::= 544
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id-TraceReference                                               ProtocolIE-ID ::= 550
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id-GSM-Cell-InfEx-Rqst                                          ProtocolIE-ID ::= 553
id-MeasurementRecoveryBehavior                                  ProtocolIE-ID ::= 554
id-MeasurementRecoveryReportingIndicator                        ProtocolIE-ID ::= 555
id-MeasurementRecoverySupportIndicator                          ProtocolIE-ID ::= 556
id-DL-DPCH-Power-Information-RL-ReconfPrepFDD                   ProtocolIE-ID ::= 557
id-F-DPCH-Information-RL-ReconfPrepFDD                          ProtocolIE-ID ::= 558
id-F-DPCH-Information-RL-SetupRqstFDD                           ProtocolIE-ID ::= 559
id-MBMS-Bearer-Service-List                                     ProtocolIE-ID ::= 560
id-MBMS-Bearer-Service-List-InfEx-Rsp                           ProtocolIE-ID ::= 561
id-Active-MBMS-Bearer-ServiceFDD                                ProtocolIE-ID ::= 562
id-Active-MBMS-Bearer-ServiceTDD                                ProtocolIE-ID ::= 563
id-Old-URA-ID                                                   ProtocolIE-ID ::= 564
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id-SynchronisationIndicator                                     ProtocolIE-ID ::= 572
id-UL-DPDCHIndicatorEDCH                                        ProtocolIE-ID ::= 573
id-EDPCH-Information                                            ProtocolIE-ID ::= 574
id-RL-Specific-EDCH-Information                                 ProtocolIE-ID ::= 575
id-EDCH-RL-Indication                                           ProtocolIE-ID ::= 576
id-EDCH-FDD-Information                                         ProtocolIE-ID ::= 577
id-EDCH-RLSet-Id                                                ProtocolIE-ID ::= 578
id-Serving-EDCHRL-Id                                            ProtocolIE-ID ::= 579
id-EDCH-FDD-DL-ControlChannelInformation                        ProtocolIE-ID ::= 580
id-EDCH-FDD-InformationResponse                                 ProtocolIE-ID ::= 581
id-EDCH-MACdFlows-To-Add                                        ProtocolIE-ID ::= 582
id-EDCH-FDD-Information-To-Modify                               ProtocolIE-ID ::= 583
id-EDCH-MACdFlows-To-Delete                                     ProtocolIE-ID ::= 584
id-EDPCH-Information-RLReconfRequest-FDD                        ProtocolIE-ID ::= 585
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id-EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd        ProtocolIE-ID ::= 586
id-EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd        ProtocolIE-ID ::= 587
id-EDCH-MacdFlowSpecificInformationList-RL-CongestInd                ProtocolIE-ID ::= 588
id-EDCH-MacdFlowSpecificInformationItem-RL-CongestInd                ProtocolIE-ID ::= 589
id-MBMS-Bearer-Service-Full-Address                                  ProtocolIE-ID ::= 590
id-Initial-DL-DPCH-TimingAdjustment                                  ProtocolIE-ID ::= 591
id-Initial-DL-DPCH-TimingAdjustment-Allowed                          ProtocolIE-ID ::= 592
id-User-Plane-Congestion-Fields-Inclusion                            ProtocolIE-ID ::= 593
id-HARQ-Preamble-Mode-Activation-Indicator                           ProtocolIE-ID ::= 594
id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp                 ProtocolIE-ID ::= 595
id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp             ProtocolIE-ID ::= 596
id-ProvidedInformation                                               ProtocolIE-ID ::= 597
id-Active-MBMS-Bearer-ServiceFDD-PFL                                 ProtocolIE-ID ::= 598
id-Active-MBMS-Bearer-ServiceTDD-PFL                                 ProtocolIE-ID ::= 599
id-FrequencyBandIndicator                                            ProtocolIE-ID ::= 600
id-Serving-cell-change-CFN                                           ProtocolIE-ID ::= 601
id-HS-DSCH-serving-cell-change-information                           ProtocolIE-ID ::= 602
id-HS-DSCH-serving-cell-change-informationResponse                   ProtocolIE-ID ::= 603
id-E-DCH-Serving-cell-change-informationResponse                     ProtocolIE-ID ::= 604
id-secondary-LCR-CCPCH-Info-TDD                                      ProtocolIE-ID ::= 605
id-E-DCH-FDD-Update-Information                                      ProtocolIE-ID ::= 606
id-Inter-Frequency-Cell-List                                         ProtocolIE-ID ::= 607
id-Inter-Frequency-Cell-Information                                  ProtocolIE-ID ::= 608
id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp                    ProtocolIE-ID ::= 609
id-TDD-Support-PLCCH                                                 ProtocolIE-ID ::= 610
id-PLCCH-Information-UL-TimeslotLCR-Info                             ProtocolIE-ID ::= 611
id-PLCCH-Information-PhyChReconfRqstTDD                              ProtocolIE-ID ::= 612
id-TDD768-maxNrDLPhysicalchannelsTS                                  ProtocolIE-ID ::= 613
id-RL-InformationResponse-RL-AdditionRspTDD768                       ProtocolIE-ID ::= 614
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD768                  ProtocolIE-ID ::= 615
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD768                  ProtocolIE-ID ::= 616
id-UL-DPCH-InformationItem-RL-AdditionRspTDD768                      ProtocolIE-ID ::= 617
id-DL-DPCH-InformationItem-RL-AdditionRspTDD768                      ProtocolIE-ID ::= 618
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768                 ProtocolIE-ID ::= 619
id-UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768            ProtocolIE-ID ::= 620
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768                 ProtocolIE-ID ::= 621
id-DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768            ProtocolIE-ID ::= 622
id-secondary-CCPCH-Info-RL-ReconfReadyTDD768                         ProtocolIE-ID ::= 623
id-hSSCCH-TDD-Specific-InfoList-Response768                          ProtocolIE-ID ::= 624
id-hSPDSCH-TDD-Specific-InfoList-Response768                         ProtocolIE-ID ::= 625
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD768            ProtocolIE-ID ::= 626
id-UL-Timeslot-InformationList-PhyChReconfRqstTDD768                 ProtocolIE-ID ::= 627
id-DL-Timeslot-InformationList-PhyChReconfRqstTDD768                 ProtocolIE-ID ::= 628
id-CellCapabilityContainer-TDD768                                    ProtocolIE-ID ::= 629
id-multiple-DedicatedMeasurementValueList-TDD768-DM-Rsp              ProtocolIE-ID ::= 630
id-neighbouringTDDCellMeasurementInformation768                      ProtocolIE-ID ::= 631
id-UEMeasurementTimeslotInfo768                                      ProtocolIE-ID ::= 632
id-Rx-Timing-Deviation-Value-768                                     ProtocolIE-ID ::= 633
id-UEMeasurementValueTransmittedPowerList768                         ProtocolIE-ID ::= 634
id-UEMeasurementValueTimeslotISCPList768                             ProtocolIE-ID ::= 635
id-RL-InformationResponse-RL-SetupRspTDD768                          ProtocolIE-ID ::= 636
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD768                     ProtocolIE-ID ::= 637
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD768                     ProtocolIE-ID ::= 638
id-UL-DPCH-InformationItem-RL-SetupRspTDD768                         ProtocolIE-ID ::= 639
```

```
id-DL-DPCH-InformationItem-RL-SetupRspTDD768                                  ProtocolIE-ID ::= 640
id-TDD768-minimumSpreadingFactor-UL                                           ProtocolIE-ID ::= 641
id-TDD768-minimumSpreadingFactor-DL                                           ProtocolIE-ID ::= 642
id-TDD768-maxNrDLPhysicalchannels                                             ProtocolIE-ID ::= 643
id-DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD                         ProtocolIE-ID ::= 644
id-DPCH-ID768-DM-Rsp                                                          ProtocolIE-ID ::= 645
id-DPCH-ID768-DM-Rqst                                                         ProtocolIE-ID ::= 646
id-DPCH-ID768-DM-Rprt                                                         ProtocolIE-ID ::= 647
id-EDPCH-Information-RLAdditionReq-FDD                                        ProtocolIE-ID ::= 648
id-HSDSCH-Configured-Indicator                                                ProtocolIE-ID ::= 649
id-RxTimingDeviationForTAext                                                  ProtocolIE-ID ::= 650
id-RxTimingDeviationForTA768                                                  ProtocolIE-ID ::= 651
id-Rx-Timing-Deviation-Value-ext                                              ProtocolIE-ID ::= 652
id-E-DCH-PowerOffset-for-SchedulingInfo                                       ProtocolIE-ID ::= 653
id-TrCH-SrcStatisticsDescr                                                    ProtocolIE-ID ::= 654
id-E-DCH-Information                                                          ProtocolIE-ID ::= 655
id-E-DCH-Serving-RL-ID                                                        ProtocolIE-ID ::= 656
id-E-DCH-Information-Reconfig                                                 ProtocolIE-ID ::= 657
id-E-DCH-Information-Response                                                 ProtocolIE-ID ::= 658
id-E-DCH-768-Information                                                      ProtocolIE-ID ::= 659
id-E-DCH-768-Information-Reconfig                                             ProtocolIE-ID ::= 660
id-E-DCH-768-Information-Response                                             ProtocolIE-ID ::= 661
id-ExtendedPropagationDelay                                                   ProtocolIE-ID ::= 662
id-Extended-Round-Trip-Time-Value                                             ProtocolIE-ID ::= 663
id-AlternativeFormatReportingIndicator                                        ProtocolIE-ID ::= 664
id-DCH-Indicator-For-E-DCH-HSDPA-Operation                                    ProtocolIE-ID ::= 665
id-E-RGCH-E-HICH-ChannelisationCodeValidityIndicator                          ProtocolIE-ID ::= 666
id-E-DCH-Minimum-Set-E-TFCIValidityIndicator                                  ProtocolIE-ID ::= 667
id-Fast-Reconfiguration-Mode                                                  ProtocolIE-ID ::= 668
id-Fast-Reconfiguration-Permission                                            ProtocolIE-ID ::= 669
id-Continuous-Packet-Connectivity-DTX-DRX-Information                         ProtocolIE-ID ::= 670
id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information                    ProtocolIE-ID ::= 671
id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response           ProtocolIE-ID ::= 672
id-CPC-Information                                                            ProtocolIE-ID ::= 673
id-MIMO-InformationResponse                                                   ProtocolIE-ID ::= 675
id-E-DCH-LCR-Information                                                      ProtocolIE-ID ::= 677
id-E-DCH-LCR-Information-Reconfig                                             ProtocolIE-ID ::= 678
id-E-DCH-LCR-Information-Response                                             ProtocolIE-ID ::= 679
id-HS-PDSCH-Code-Change-Grant                                                 ProtocolIE-ID ::= 680
id-HS-PDSCH-Code-Change-Indicator                                             ProtocolIE-ID ::= 681
id-Extended-SRNC-ID                                                           ProtocolIE-ID ::= 682
id-Extended-RNC-ID                                                            ProtocolIE-ID ::= 683
id-SixtyfourQAM-DL-SupportIndicator                                           ProtocolIE-ID ::= 684
id-Enhanced-FACH-Support-Indicator                                            ProtocolIE-ID ::= 685
id-Enhanced-FACH-Information-ResponseFDD                                      ProtocolIE-ID ::= 686
id-HSDSCH-MACdPDUSizeFormat                                                   ProtocolIE-ID ::= 690
id-MaximumMACdPDU-SizeExtended                                                ProtocolIE-ID ::= 691
id-F-DPCH-SlotFormat                                                          ProtocolIE-ID ::= 692
id-F-DPCH-SlotFormatSupportRequest                                            ProtocolIE-ID ::= 693
id-eDCH-MACdFlow-Retransmission-Timer-LCR                                     ProtocolIE-ID ::= 694
id-Max-UE-DTX-Cycle                                                           ProtocolIE-ID ::= 695
id-GANSS-Common-Data                                                          ProtocolIE-ID ::= 699
id-GANSS-Information                                                          ProtocolIE-ID ::= 700
id-GANSS-Generic-Data                                                         ProtocolIE-ID ::= 701
```

```
id-TUTRANGANSSMeasurementThresholdInformation                    ProtocolIE-ID ::= 702
id-TUTRANGANSSMeasurementValueInformation                        ProtocolIE-ID ::= 703
id-Ext-Reference-E-TFCI-PO                                       ProtocolIE-ID ::= 705
id-Ext-Max-Bits-MACe-PDU-non-scheduled                           ProtocolIE-ID ::= 706
id-HARQ-MemoryPartitioningInfoExtForMIMO                         ProtocolIE-ID ::= 707
id-MIMO-ActivationIndicator                                      ProtocolIE-ID ::= 708
id-MIMO-Mode-Indicator                                           ProtocolIE-ID ::= 709
id-MIMO-N-M-Ratio                                                ProtocolIE-ID ::= 710
id-TransportBearerNotSetupIndicator                              ProtocolIE-ID ::= 711
id-TransportBearerNotRequestedIndicator                          ProtocolIE-ID ::= 712
id-PowerControlGAP                                               ProtocolIE-ID ::= 713
id-UARFCNforNt                                                   ProtocolIE-ID ::= 714
id-LCRTDD-uplink-Physical-Channel-Capability                     ProtocolIE-ID ::= 715
id-number-Of-Supported-Carriers                                  ProtocolIE-ID ::= 716
id-HSSICH-SIRTarget                                              ProtocolIE-ID ::= 717
id-HSSICH-TPC-StepSize                                           ProtocolIE-ID ::= 718
id-tSN-Length                                                    ProtocolIE-ID ::= 719
id-HS-SICH-ID-Extension                                          ProtocolIE-ID ::= 720
id-HSSICH-Info-DM-Rqst-Extension                                 ProtocolIE-ID ::= 721
id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR           ProtocolIE-ID ::= 722
id-multicarrier-number                                           ProtocolIE-ID ::= 723
id-UPPCHPositionLCR                                              ProtocolIE-ID ::= 724
id-UpPCH-InformationList-LCRTDD                                  ProtocolIE-ID ::= 725
id-UpPCH-InformationItem-LCRTDD                                  ProtocolIE-ID ::= 726
id-Multiple-PLMN-List                                            ProtocolIE-ID ::= 727
id-UE-Capabilities-Info                                          ProtocolIE-ID ::= 728
id-FrameOffset                                                   ProtocolIE-ID ::= 729
id-ChipOffset                                                    ProtocolIE-ID ::= 730
id-Enhanced-PCH-Capability                                       ProtocolIE-ID ::= 731
id-SixteenQAM-UL-Operation-Indicator                             ProtocolIE-ID ::= 732
id-E-TFCI-Boost-Information                                      ProtocolIE-ID ::= 733
id-SixtyfourQAM-UsageAllowedIndicator                            ProtocolIE-ID ::= 734
id-SixtyfourQAM-DL-UsageIndicator                                ProtocolIE-ID ::= 735
id-Default-Serving-Grant-in-DTX-Cycle2                           ProtocolIE-ID ::= 736
id-E-DPDCH-PowerInterpolation                                    ProtocolIE-ID ::= 737
id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory                   ProtocolIE-ID ::= 738
id-E-DCH-MACdPDUSizeFormat                                       ProtocolIE-ID ::= 739
id-Continuous-Packet-Connectivity-HS-SCCH-Less-Deactivate-Indicator ProtocolIE-ID ::= 740
id-E-DCH-DL-Control-Channel-Change-Information                   ProtocolIE-ID ::= 741
id-E-DCH-DL-Control-Channel-Grant-Information                    ProtocolIE-ID ::= 742
id-MaximumNumber-Of-Retransmission-For-SchedulingInfo-LCRTDD     ProtocolIE-ID ::= 743
id-E-DCH-RetransmissionTimer-For-SchedulingInfo-LCRTDD           ProtocolIE-ID ::= 744
id-E-PUCH-PowerControlGAP                                        ProtocolIE-ID ::= 745
id-HSDSCH-TBSizeTableIndicator                                   ProtocolIE-ID ::= 746
id-UE-with-enhanced-HS-SCCH-support-indicator                    ProtocolIE-ID ::= 747
id-DGANSS-Corrections-Req                                        ProtocolIE-ID ::= 748
id-E-AGCH-Table-Choice                                           ProtocolIE-ID ::= 749
id-RANAP-EnhancedRelocationInformationRequest                    ProtocolIE-ID ::= 750
id-RANAP-EnhancedRelocationInformationResponse                   ProtocolIE-ID ::= 751
id-Common-EDCH-MAC-d-Flow-Specific-InformationFDD                ProtocolIE-ID ::= 752
id-Common-EDCH-Support-Indicator                                 ProtocolIE-ID ::= 753
id-E-RNTI                                                        ProtocolIE-ID ::= 754
id-Released-CN-Domain                                            ProtocolIE-ID ::= 755
id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rqst                   ProtocolIE-ID ::= 756
```

```
id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rsp                    ProtocolIE-ID ::= 757
id-MBMS-Bearer-Service-in-MBMS-Cell-InfEx-Rprt                   ProtocolIE-ID ::= 758
id-MBMS-Cell-InfEx-Rqst                                          ProtocolIE-ID ::= 759
id-MBMS-Cell-InfEx-Rsp                                           ProtocolIE-ID ::= 760
id-MBMS-Cell-InfEx-Rprt                                          ProtocolIE-ID ::= 761
id-Counting-Information                                          ProtocolIE-ID ::= 762
id-Transmission-Mode-Information                                 ProtocolIE-ID ::= 763
id-MBMS-Neighbouring-Cell-Information                            ProtocolIE-ID ::= 764
id-MBMS-RLC-Sequence-Number-Information                          ProtocolIE-ID ::= 765
id-RLC-Sequence-Number                                           ProtocolIE-ID ::= 766
id-Neighbouring-E-UTRA-CellInformation                           ProtocolIE-ID ::= 767
id-MBSFN-Cluster-Identity                                        ProtocolIE-ID ::= 769
id-MCCH-Configuration-Info                                       ProtocolIE-ID ::= 770
id-MCCH-Message-List                                             ProtocolIE-ID ::= 771
id-MBSFN-Scheduling-Transmission-Time-Interval-Info-List          ProtocolIE-ID ::= 772
id-GANSS-Time-ID                                                 ProtocolIE-ID ::= 773
id-GANSS-AddIonoModelReq                                         ProtocolIE-ID ::= 774
id-GANSS-EarthOrientParaReq                                      ProtocolIE-ID ::= 775
id-GANSS-AddNavigationModelsReq                                  ProtocolIE-ID ::= 776
id-GANSS-AddUTCModelsReq                                         ProtocolIE-ID ::= 777
id-GANSS-AuxInfoReq                                              ProtocolIE-ID ::= 778
id-GANSS-SBAS-ID                                                 ProtocolIE-ID ::= 779
id-GANSS-ID                                                      ProtocolIE-ID ::= 780
id-GANSS-Additional-Ionospheric-Model                            ProtocolIE-ID ::= 781
id-GANSS-Earth-Orientation-Parameters                            ProtocolIE-ID ::= 782
id-GANSS-Additional-Time-Models                                  ProtocolIE-ID ::= 783
id-GANSS-Additional-Navigation-Models                            ProtocolIE-ID ::= 784
id-GANSS-Additional-UTC-Models                                   ProtocolIE-ID ::= 785
id-GANSS-Auxiliary-Information                                   ProtocolIE-ID ::= 786
id-MinimumReducedE-DPDCH-GainFactor                              ProtocolIE-ID ::= 787
id-Enhanced-FACH-Information-ResponseLCR                         ProtocolIE-ID ::= 788
id-Common-EDCH-MAC-d-Flow-Specific-InformationLCR                ProtocolIE-ID ::= 789
id-HSDSCH-PreconfigurationSetup                                  ProtocolIE-ID ::= 790
id-HSDSCH-PreconfigurationInfo                                   ProtocolIE-ID ::= 791
id-NoOfTargetCellHS-SCCH-Order                                   ProtocolIE-ID ::= 792
id-EnhancedHSServingCC-Abort                                     ProtocolIE-ID ::= 793
id-Additional-HS-Cell-Information-RL-Setup                       ProtocolIE-ID ::= 794
id-Additional-HS-Cell-Information-Response                       ProtocolIE-ID ::= 795
id-Additional-HS-Cell-Information-RL-Addition                    ProtocolIE-ID ::= 796
id-Additional-HS-Cell-Change-Information-Response                ProtocolIE-ID ::= 797
id-Additional-HS-Cell-Information-RL-Reconf-Prep                 ProtocolIE-ID ::= 798
id-Additional-HS-Cell-Information-RL-Reconf-Req                  ProtocolIE-ID ::= 799
id-Additional-HS-Cell-RL-Reconf-Response                         ProtocolIE-ID ::= 800
id-Additional-HS-Cell-Information-RL-Param-Upd                   ProtocolIE-ID ::= 801
id-Secondary-Serving-Cell-List                                   ProtocolIE-ID ::= 802
id-MultiCarrier-HSDSCH-Physical-Layer-Category                   ProtocolIE-ID ::= 803
id-IdleIntervalInformation                                       ProtocolIE-ID ::= 804
id-NeedforIdleInterval                                           ProtocolIE-ID ::= 805
id-IdleIntervalConfigurationIndicator                            ProtocolIE-ID ::= 806
id-ContinuousPacketConnectivity-DRX-InformationLCR               ProtocolIE-ID ::= 807
id-ContinuousPacketConnectivity-DRX-Information-ResponseLCR      ProtocolIE-ID ::= 808
id-E-AGCH-UE-Inactivity-Monitor-Threshold                        ProtocolIE-ID ::= 809
id-CPC-InformationLCR                                            ProtocolIE-ID ::= 810
id-E-DCH-Semi-PersistentScheduling-Information-LCR               ProtocolIE-ID ::= 811
```

```
id-HS-DSCH-Semi-PersistentScheduling-Information-LCR                    ProtocolIE-ID ::= 812
id-HS-DSCH-Semi-PersistentScheduling-Information-ResponseLCR            ProtocolIE-ID ::= 813
id-E-DCH-Semi-PersistentScheduling-Information-ResponseLCR              ProtocolIE-ID ::= 814
id-MIMO-SFMode-For-HSPDSCHDualStream                                    ProtocolIE-ID ::= 815
id-MIMO-SFMode-Supported-For-HSPDSCHDualStream                          ProtocolIE-ID ::= 816
id-MIMO-ReferenceSignal-InformationListLCR                              ProtocolIE-ID ::= 817
id-GANSS-alm-keplerianNAVAlmanac                                        ProtocolIE-ID ::= 818
id-GANSS-alm-keplerianReducedAlmanac                                    ProtocolIE-ID ::= 819
id-GANSS-alm-keplerianMidiAlmanac                                       ProtocolIE-ID ::= 820
id-GANSS-alm-keplerianGLONASS                                           ProtocolIE-ID ::= 821
id-GANSS-alm-ecefSBASAlmanac                                            ProtocolIE-ID ::= 822
id-DL-RLC-PDU-Size-Format                                               ProtocolIE-ID ::= 823
id-MACes-Maximum-Bitrate-LCR                                            ProtocolIE-ID ::= 824
id-Single-Stream-MIMO-ActivationIndicator                               ProtocolIE-ID ::= 825
id-Single-Stream-MIMO-Mode-Indicator                                    ProtocolIE-ID ::= 826
id-Dual-Band-Secondary-Serving-Cell-List                                ProtocolIE-ID ::= 827
id-UE-AggregateMaximumBitRate                                           ProtocolIE-ID ::= 828
id-power-offset-for-S-CPICH-for-MIMO                                    ProtocolIE-ID ::= 829
id-power-offset-for-S-CPICH-for-MIMO-Request-Indicator                  ProtocolIE-ID ::= 830
id-UE-SupportIndicatorExtension                                         ProtocolIE-ID ::= 831
id-ActivationInformation                                                ProtocolIE-ID ::= 835
id-CellPortionLCRID                                                     ProtocolIE-ID ::= 836
id-Additional-EDCH-Cell-Information-RL-Setup-Req                        ProtocolIE-ID ::= 837
id-Additional-EDCH-Cell-Information-Response                            ProtocolIE-ID ::= 838
id-Additional-EDCH-Cell-Information-RL-Add-Req                          ProtocolIE-ID ::= 839
id-Additional-EDCH-Cell-Information-Response-RLAdd                      ProtocolIE-ID ::= 840
id-Additional-EDCH-Cell-Information-RL-Reconf-Prep                      ProtocolIE-ID ::= 841
id-Additional-EDCH-Cell-Information-RL-Reconf-Req                       ProtocolIE-ID ::= 842
id-Additional-EDCH-Cell-Information-RL-Param-Upd                        ProtocolIE-ID ::= 843
id-Additional-EDCH-Preconfiguration-Information                         ProtocolIE-ID ::= 844
id-MulticellEDCH-Information                                            ProtocolIE-ID ::= 845
id-Additional-EDCH-Cell-Information-ResponseRLReconf                    ProtocolIE-ID ::= 854
id-EDCH-Indicator                                                       ProtocolIE-ID ::= 855
id-DiversityMode                                                        ProtocolIE-ID ::= 856
id-TransmitDiversityIndicator                                           ProtocolIE-ID ::= 857
id-NonCellSpecificTxDiversity                                           ProtocolIE-ID ::= 858
id-CellCapabilityContainerExtension-FDD                                 ProtocolIE-ID ::= 859
id-HSDSCH-Physical-Layer-Category                                       ProtocolIE-ID ::= 860
id-E-RNTI-For-FACH                                                      ProtocolIE-ID ::= 861
id-H-RNTI-For-FACH                                                      ProtocolIE-ID ::= 862
id-RNTI-Allocation-Indicator                                            ProtocolIE-ID ::= 863
id-UE-AggregateMaximumBitRate-Enforcement-Indicator                     ProtocolIE-ID ::= 864
id-DCH-MeasurementOccasion-Information                                  ProtocolIE-ID ::= 865
id-DCH-MeasurementType-Indicator                                        ProtocolIE-ID ::= 866
id-Out-of-Sychronization-Window                                         ProtocolIE-ID ::= 867
id-MulticellEDCH-RL-SpecificInformation                                 ProtocolIE-ID ::= 868
id-DGNSS-ValidityPeriod                                                 ProtocolIE-ID ::= 869
id-TS0-HS-PDSCH-Indication-LCR                                          ProtocolIE-ID ::= 870
id-UE-TS0-CapabilityLCR                                                 ProtocolIE-ID ::= 871
id-Non-Serving-RL-Preconfig-Info                                        ProtocolIE-ID ::= 872
id-Non-Serving-RL-Preconfig-Setup                                       ProtocolIE-ID ::= 873
id-Non-Serving-RL-Preconfig-Removal                                     ProtocolIE-ID ::= 874
id-Additional-E-DCH-Non-Serving-RL-Preconfiguration-Setup               ProtocolIE-ID ::= 875
id-Additional-E-DCH-New-non-serving-RL-E-DCH-FDD-DL-Control-Channel-InfoList    ProtocolIE-ID ::= 876
```

```
id-CellListValidityIndicator                                    ProtocolIE-ID ::= 877

END
```

## 9.3.7 Container Definitions

```
-- **************************************************************
--
-- Container definitions
--
-- **************************************************************

RNSAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Containers (5)  }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    maxPrivateIEs,
    maxProtocolExtensions,
    maxProtocolIEs,
    Criticality,
    Presence,
    PrivateIE-ID,
    ProtocolIE-ID
FROM RNSAP-CommonDataTypes;

-- **************************************************************
--
-- Class Definition for Protocol IEs
--
-- **************************************************************

RNSAP-PROTOCOL-IES ::= CLASS {
    &id             ProtocolIE-ID                   UNIQUE,
    &criticality            Criticality,
    &Value,
    &presence           Presence
}
WITH SYNTAX {
    ID              &id
    CRITICALITY         &criticality
    TYPE                &Value
    PRESENCE            &presence
```

```
}

-- **************************************************************
--
-- Class Definition for Protocol IEs
--
-- **************************************************************

RNSAP-PROTOCOL-IES-PAIR ::= CLASS {
    &id             ProtocolIE-ID                   UNIQUE,
    &firstCriticality       Criticality,
    &FirstValue,
    &secondCriticality      Criticality,
    &SecondValue,
    &presence           Presence
}
WITH SYNTAX {
    ID              &id
    FIRST CRITICALITY       &firstCriticality
    FIRST TYPE          &FirstValue
    SECOND CRITICALITY      &secondCriticality
    SECOND TYPE         &SecondValue
    PRESENCE            &presence
}

-- **************************************************************
--
-- Class Definition for Protocol Extensions
--
-- **************************************************************

RNSAP-PROTOCOL-EXTENSION ::= CLASS {
    &id             ProtocolIE-ID               UNIQUE,
    &criticality            Criticality,
    &Extension,
    &presence       Presence
}
WITH SYNTAX {
    ID              &id
    CRITICALITY         &criticality
    EXTENSION           &Extension
    PRESENCE            &presence
}

-- **************************************************************
--
-- Class Definition for Private IEs
--
-- **************************************************************

RNSAP-PRIVATE-IES ::= CLASS {
    &id             PrivateIE-ID,
    &criticality            Criticality,
    &Value,
```

```
    &presence       Presence
}
WITH SYNTAX {
    ID              &id
    CRITICALITY         &criticality
    TYPE            &Value
    PRESENCE            &presence
}

-- **************************************************************
--
-- Container for Protocol IEs
--
-- **************************************************************

ProtocolIE-Container {RNSAP-PROTOCOL-IES : IesSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-Field {{IesSetParam}}

ProtocolIE-Single-Container {RNSAP-PROTOCOL-IES : IesSetParam} ::=
    ProtocolIE-Field {{IesSetParam}}

ProtocolIE-Field {RNSAP-PROTOCOL-IES : IesSetParam} ::= SEQUENCE {
    id              RNSAP-PROTOCOL-IES.&id              ({IesSetParam}),
    criticality         RNSAP-PROTOCOL-IES.&criticality         ({IesSetParam}{@id}),
    value               RNSAP-PROTOCOL-IES.&Value               ({IesSetParam}{@id})
}

-- **************************************************************
--
-- Container for Protocol IE Pairs
--
-- **************************************************************

ProtocolIE-ContainerPair {RNSAP-PROTOCOL-IES-PAIR : IesSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-FieldPair {{IesSetParam}}

ProtocolIE-FieldPair {RNSAP-PROTOCOL-IES-PAIR : IesSetParam} ::= SEQUENCE {
    id              RNSAP-PROTOCOL-IES-PAIR.&id         ({IesSetParam}),
    firstCriticality        RNSAP-PROTOCOL-IES-PAIR.&firstCriticality   ({IesSetParam}{@id}),
    firstValue          RNSAP-PROTOCOL-IES-PAIR.&FirstValue         ({IesSetParam}{@id}),
    secondCriticality       RNSAP-PROTOCOL-IES-PAIR.&secondCriticality  ({IesSetParam}{@id}),
    secondValue         RNSAP-PROTOCOL-IES-PAIR.&SecondValue            ({IesSetParam}{@id})
}

-- **************************************************************
--
-- Container Lists for Protocol IE Containers
--
-- **************************************************************

ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES : IesSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
```

```
    ProtocolIE-Container {{IesSetParam}}

ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES-PAIR : IesSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-ContainerPair {{IesSetParam}}

-- **************************************************************
--
-- Container for Protocol Extensions
--
-- **************************************************************

ProtocolExtensionContainer {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
    SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
    ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
    id              RNSAP-PROTOCOL-EXTENSION.&id            ({ExtensionSetParam}),
    criticality         RNSAP-PROTOCOL-EXTENSION.&criticality       ({ExtensionSetParam}{@id}),
    extensionValue          RNSAP-PROTOCOL-EXTENSION.&Extension     ({ExtensionSetParam}{@id})
}

-- **************************************************************
--
-- Container for Private IEs
--
-- **************************************************************

PrivateIE-Container {RNSAP-PRIVATE-IES : IesSetParam} ::=
    SEQUENCE (SIZE (1..maxPrivateIEs)) OF
    PrivateIE-Field {{IesSetParam}}

PrivateIE-Field {RNSAP-PRIVATE-IES : IesSetParam} ::= SEQUENCE {
    id              RNSAP-PRIVATE-IES.&id           ({IesSetParam}),
    criticality         RNSAP-PRIVATE-IES.&criticality      ({IesSetParam}{@id}),
    value           RNSAP-PRIVATE-IES.&Value        ({IesSetParam}{@id})
}

END
```

## 9.4 Message Transfer Syntax

RNSAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [20].

## 9.5 Timers

$T_{Preempt}$

- Specifies the maximum time that a DRNS may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

$T_{RELOCprep}$

- Specifies the maximum time for the Enhanced Relocation procedure in the SRNC.

# 10 Handling of Unknown, Unforeseen and Erroneous Protocol Data

## 10.1 General

Protocol Error cases can be divided into three classes:

1. Transfer Syntax Error;
2. Abstract Syntax Error;
3. Logical Error.

Protocol errors can occur in the following functions within a receiving node.

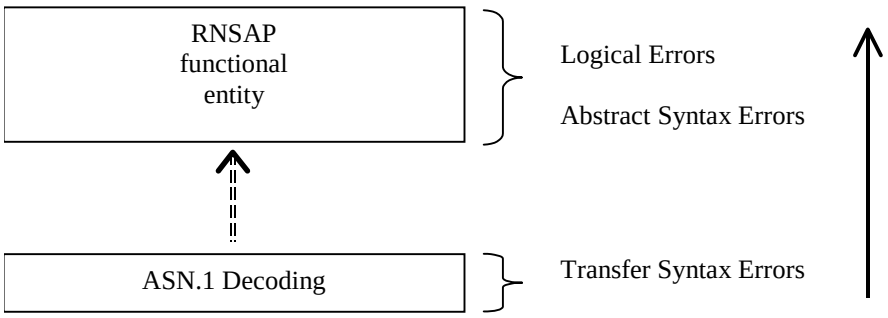



**Figure 34: Protocol Errors in RNSAP**

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

## 10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. E.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error;
- Violation in list element constraints. E.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, than this case will be handled as a transfer syntax error;
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message);
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

# 10.3 Abstract Syntax Error

## 10.3.1 General

An Abstract Syntax Error occurs when the receiving functional RNSAP entity:

1. Receives IEs or IE groups that cannot be understood (unknown IE id);
2 Receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
3 Does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;
4 Receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;
5 receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

## 10.3.2 Criticality Information

In the RNSAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

1. Reject IE;
2. Ignore IE and Notify Sender;
3. Ignore IE.

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by a receiving entity (some may still remain unsupported).

2. EP: The comprehension of different Eps within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

## 10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, RNSAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field f the concerned object of class RNSAP-PROTOCOL-IES, RNSAP-PROTOCOL-IES-PAIR, RNSAP-PROTOCOL-EXTENSION or RNSAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

1. Optional;

2. Conditional;

3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

## 10.3.4 Not Comprehended IE/IE Group

### 10.3.4.1 Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

**Reject IE:**

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

**Ignore IE and Notify Sender:**

- If a message is received with a *Procedure ID* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

**Ignore IE:**

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

### 10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

### 10.3.4.2 IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* IE and *Type of Message* IE according to the following:

**Reject IE:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*, that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

**Ignore IE and Notify Sender:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

**Ignore IE:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

## 10.3.5 Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

**Reject IE:**

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

**Ignore IE and Notify Sender:**

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

**Ignore IE:**

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

### 10.3.6 IEs or IE Groups Received in Wrong Order or With Too Many Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".

- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

## 10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

**Class 1:**

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value. Typical cause values are:

**Protocol Causes:**

1. Semantic Error;

2. Message not Compatible with Receiver State.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

**Class 2:**

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

## 10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.

- In case a response message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

  If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality “ignore and notify” have earlier occurred within the same procedure.

# Annex A (normative): Allocation and Pre-emption of Radio Links in the DRNS

## A.1 Deriving Allocation Information for a Radio Link

### A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the UE in the DRNS or
b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:

  - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.

  - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.

  - If all non-excluded transport channels that are intended to use a Radio Link to be established have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
    If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

### A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the UE in the DRNS,
b) a previous procedure adding or modifying the transport channel, or
c) the current procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:

  - The transport channels to be added or modified that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.

  - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.

  - If all non-excluded transport channels that are to be added or modified in the Radio Link have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
    If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

# A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the UE in the DRNS or
b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:

  - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.

  - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".
    If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

# A.3 The Allocation/Retention Process

The DRNS shall establish or modify the resources for a Radio Link according to:

- The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio to be established or modified. The Allocation Information is derived according to clause A.1.

- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.

- The resource situation in the DRNS.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

-. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger pre-emption" and the resource situation so requires, the DRNS may trigger the pre-emption process in clause A.4 to free resources for this allocation request.

-. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.

-. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.

-. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

## A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the DRNS shall initiate the Radio Link Pre-emption procedure for all the UE Contexts having Radio Links selected for pre-emption and start the $T_{Preempt}$ timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the DRNS shall stop the $T_{Preempt}$ timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the $T_{Preempt}$ timer expires, the DRNS shall reject the procedure that triggered the pre-emption process and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

# Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

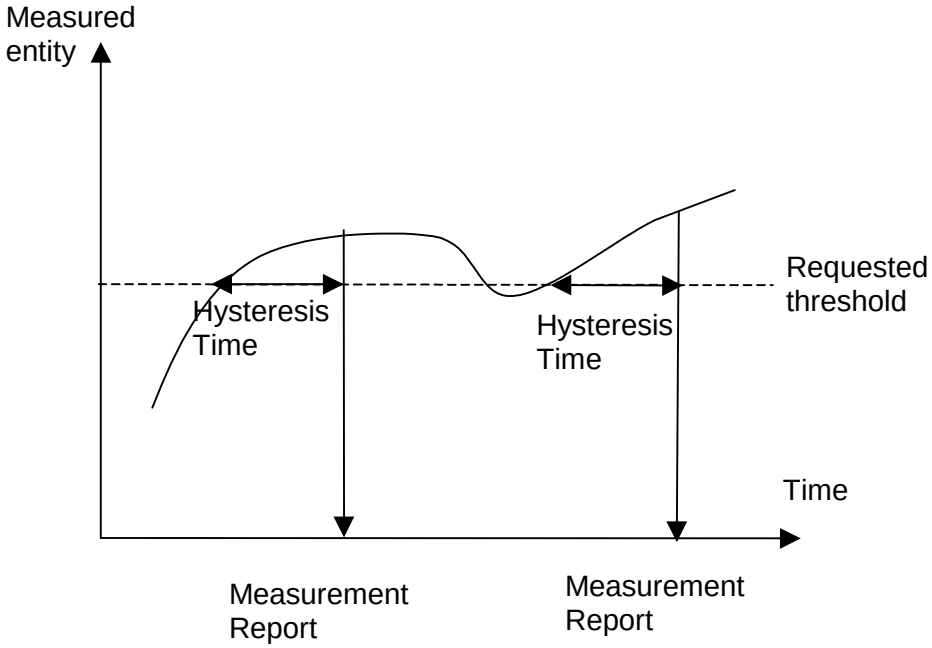



**Figure B.1: Event A reporting with Hysteresis Time specified**

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

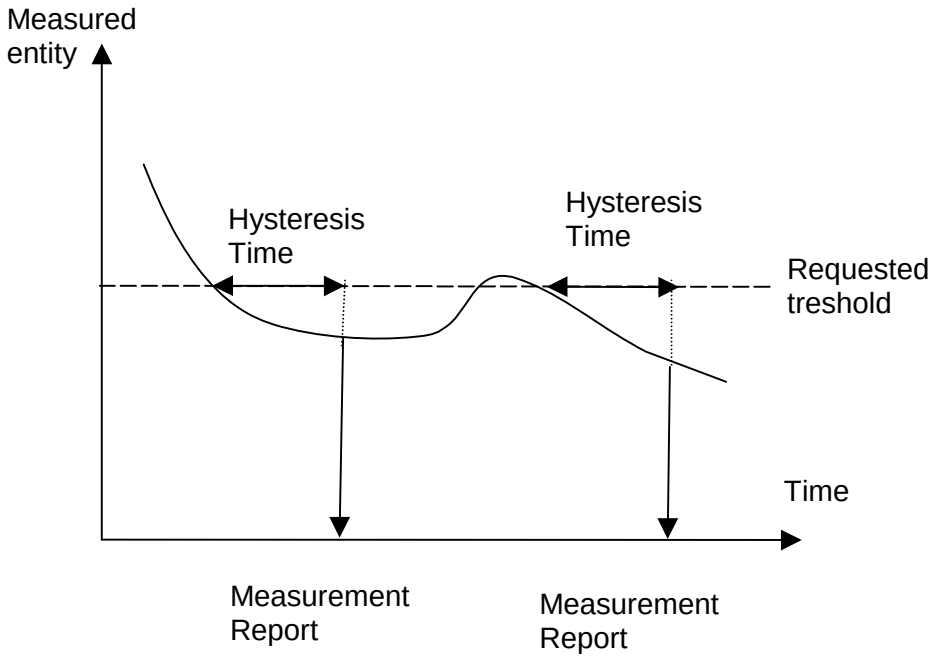



**Figure B.2: Event B reporting with Hysteresis Time specified**

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

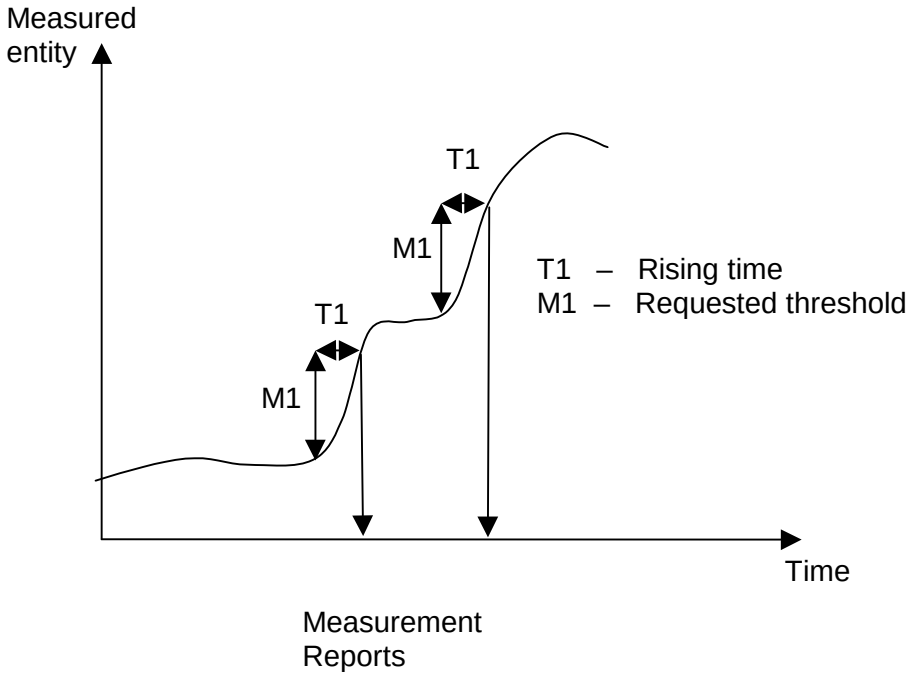



**Figure B.3: Event C reporting**

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figureB.4 is initiated if the Falling Time T1 is less than the requested time.

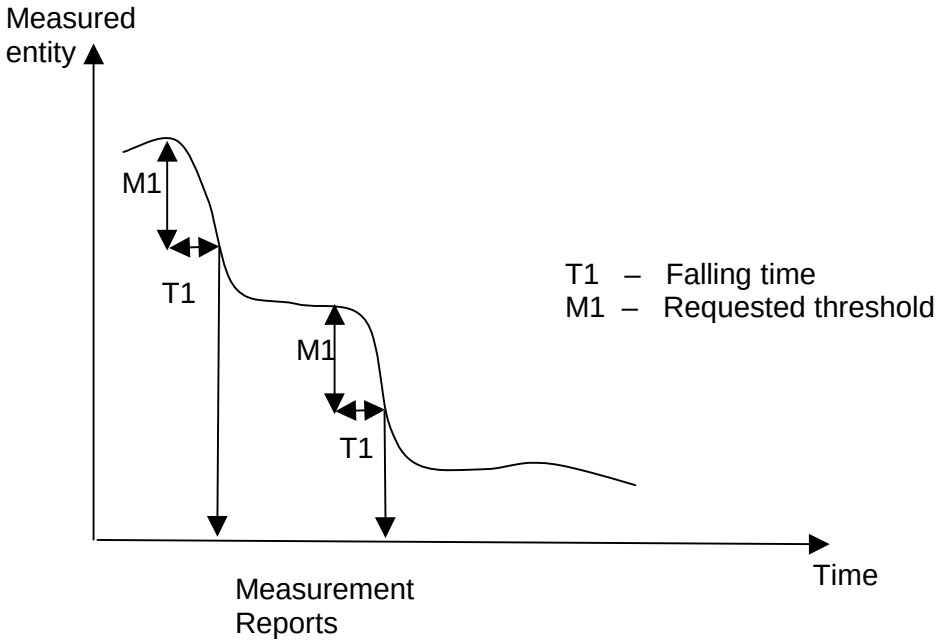



**Figure B.4: Event D reporting**

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) the Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

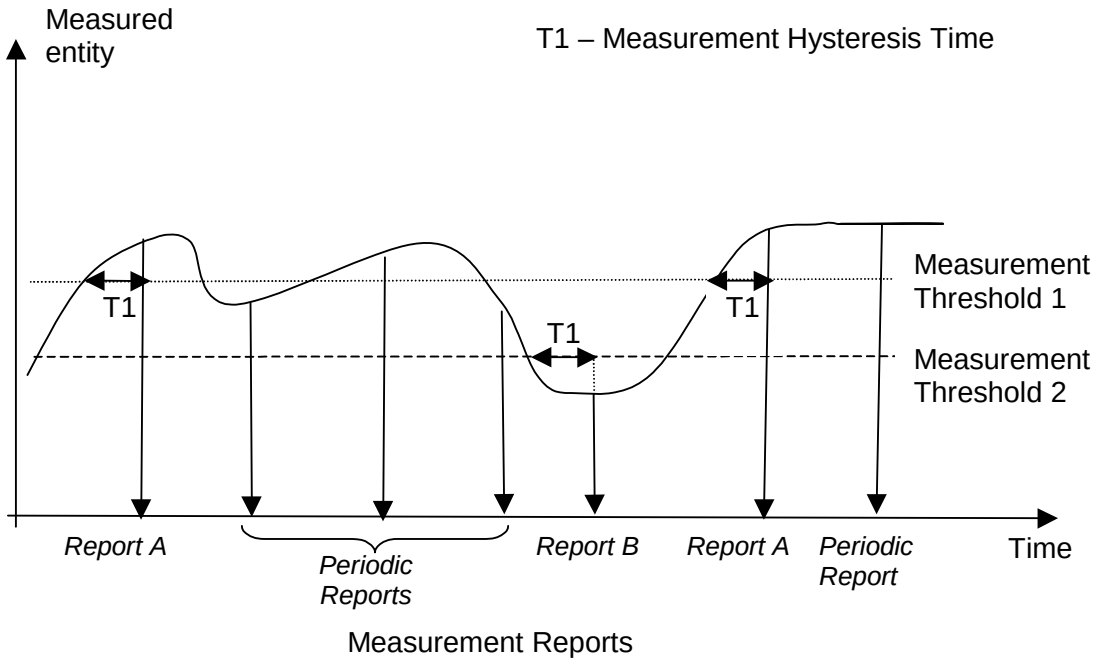



**Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested**

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

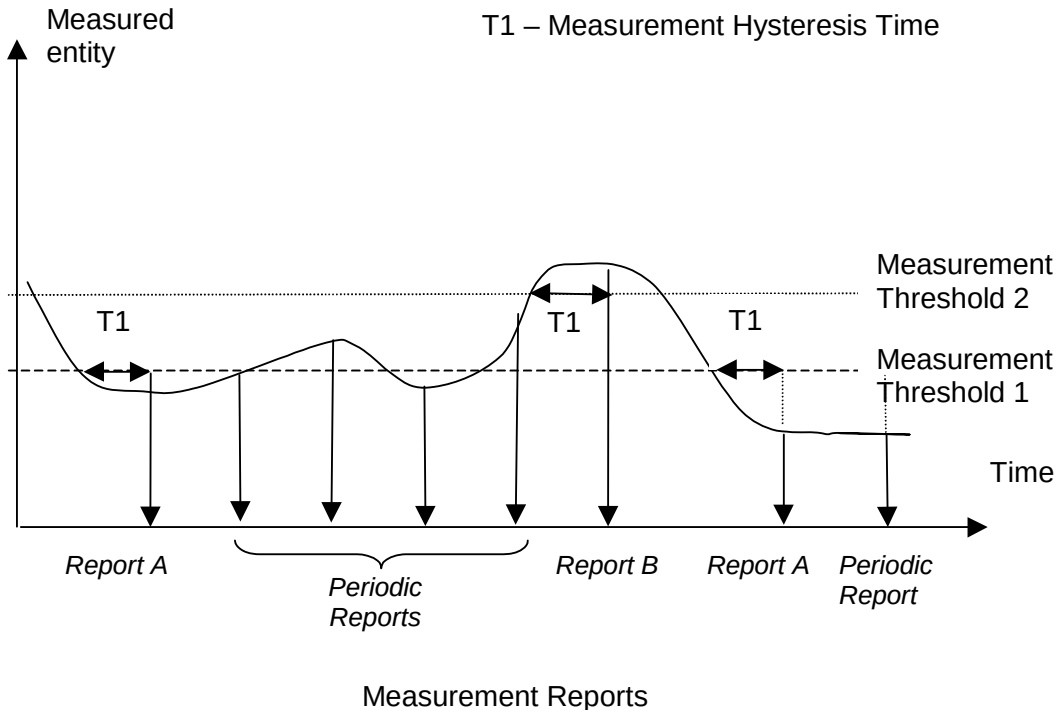



**Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested**

# Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

## C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | | | YES | reject |
| Transaction ID | M | | | | – | |
| A | M | | | | YES | reject |
| **B** | M | | | | YES | reject |
| **>E** | | *1..<maxE>* | | | EACH | ignore |
| **>>F** | | *1..<maxF>* | | | - | |
| >>>G | | *0..3, …* | | | EACH | ignore |
| **>>H** | | *1..<maxH>* | | | EACH | ignore |
| >>>G | | *0..3, …* | | | EACH | ignore and notify |
| >>G | M | | | | YES | reject |
| **>>J** | | *1..<maxJ>* | | | - | |
| >>>G | | *0..3, …* | | | EACH | reject |
| **C** | M | | | | YES | reject |
| **>K** | | *1..<maxK>* | | | EACH | ignore and notify |
| **>>L** | | *1..<maxL>* | | | - | |
| >>>M | O | | | | - | |
| D | M | | | | YES | reject |

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

# C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

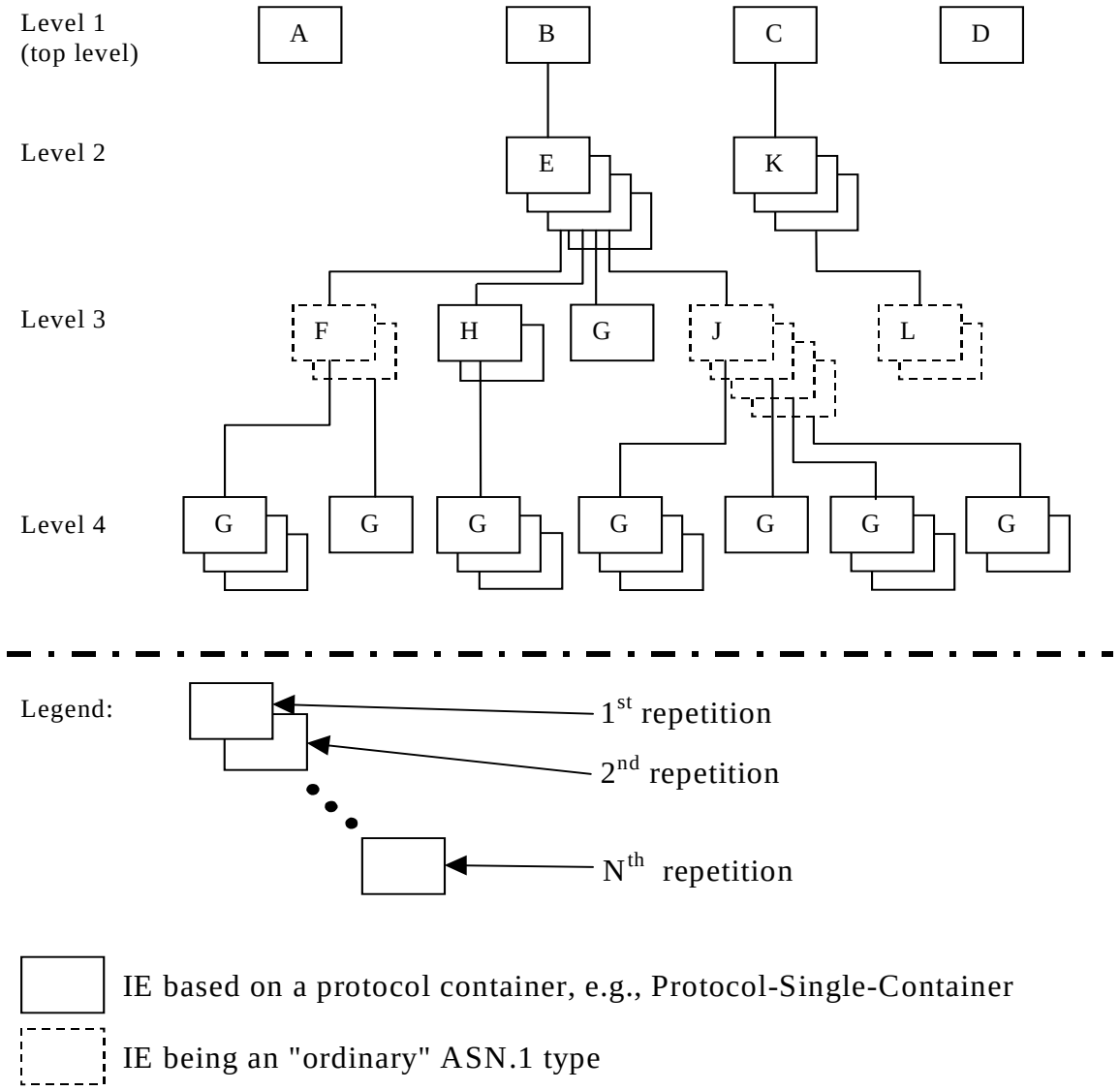



**Figure C.1: Example of content of a received RNSAP message based on the EXAMPLE MESSAGE**

# C.3 Content of Criticality Diagnostics

## C.3.1 Example 1

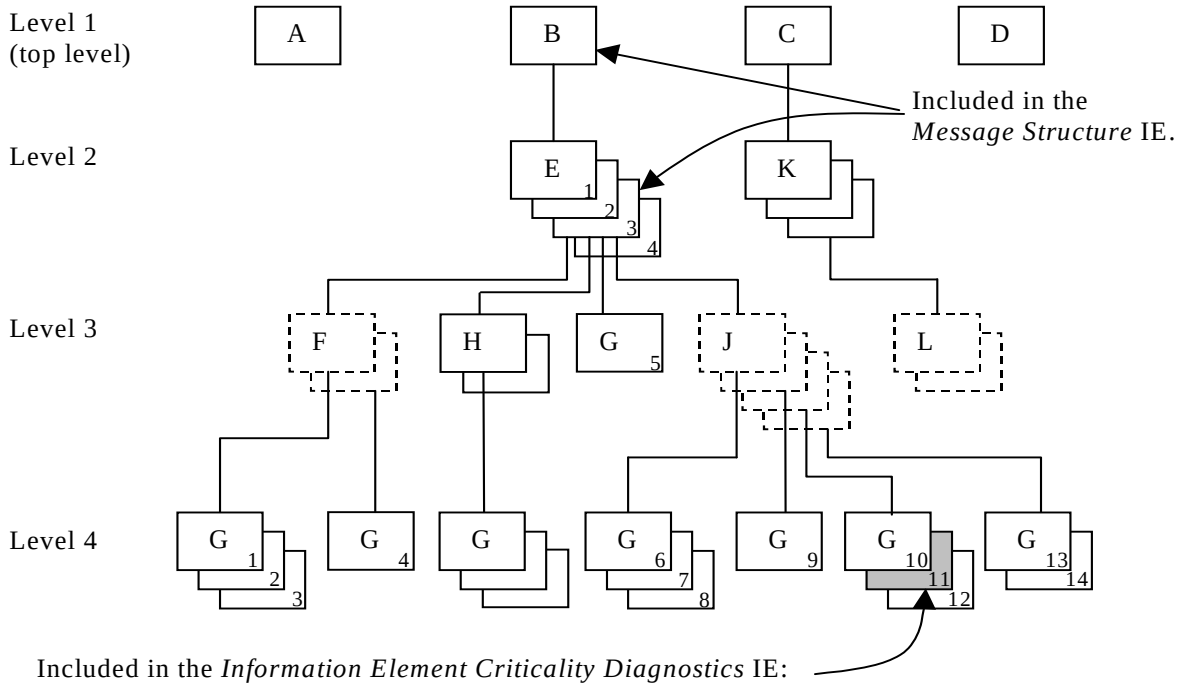



**Figure C.2: Example of a received RNSAP message containing a not comprehended IE**

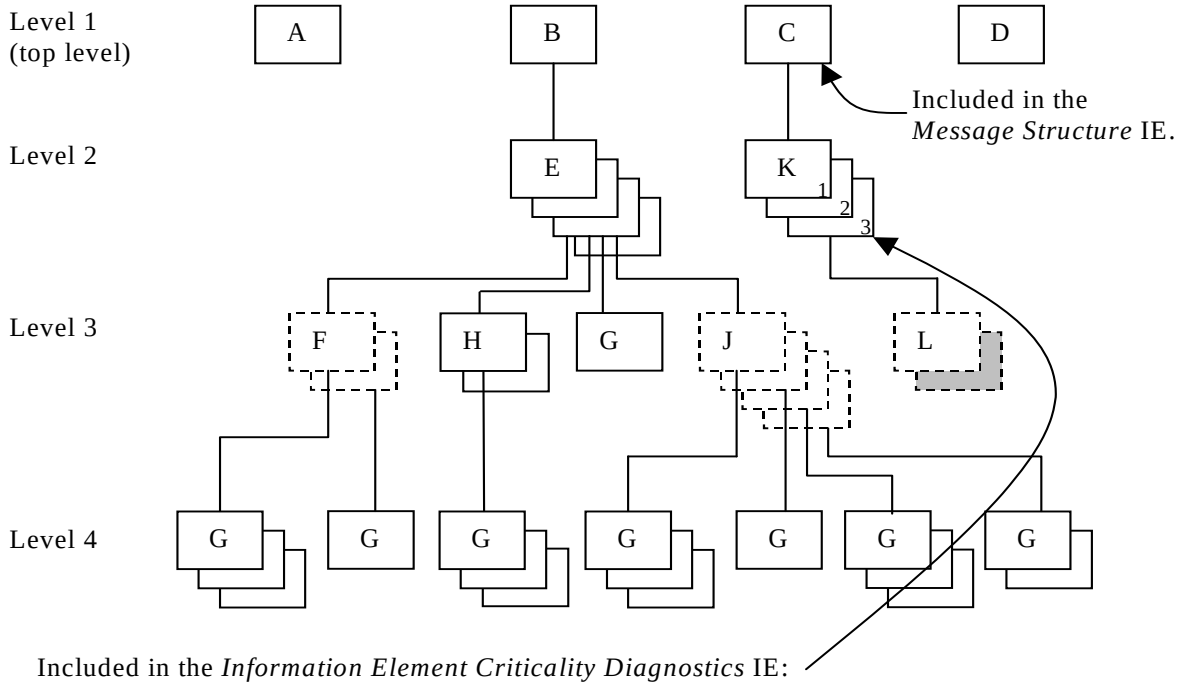
If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 4. |
| IE ID | id-G | IE ID from the reported level, i.e. level 4. |
| Repetition Number | 11 | Repetition number on the reported level, i.e. level 4.<br>(Since the IE E (level 2) is the lowest level included in the *Message Structure* IE this is the eleventh occurrence of IE G within the IE E (level 2). |
| Type of Error | not understood | |
| Message Structure, *first repetition* | | |
| >IE ID | id-B | IE ID from level 1. |
| Message Structure, *second repetition* | | |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition Number | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |

Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.

Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

## C.3.2 Example 2




Included in the *Information Element Criticality Diagnostics* IE:
a) *IE ID* IE
b) *Repetition Number* IE

**Figure C.3: Example of a received RNSAP message containing a not comprehended IE**

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | ignore and notify | Criticality for IE on the reported level, i.e. level 2. |
| IE ID | id-K | IE ID from the reported level, i.e. level 2. |
| Repetition Number | 3 | Repetition number on the reported level, i.e. level 2. |
| Type of Error | not understood | |
| Message Structure, *first repetition* | | |
| >IE ID | id-C | IE ID from the lowest level above the reported level, i.e. level 1. |

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

## C.3.3 Example 3

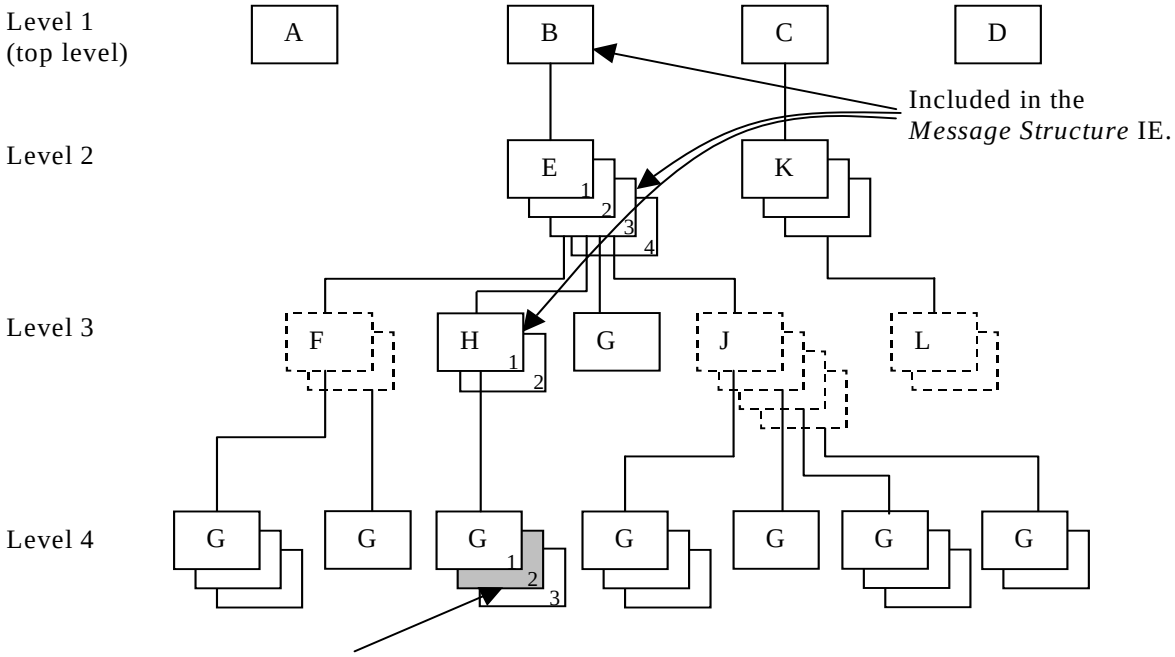



**Figure C.4: Example of a received RNSAP message containing a not comprehended IE**

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | ignore and notify | Criticality for IE on the reported level, i.e. level 4. |
| IE ID | id-G | IE ID from the reported level, i.e. level 4. |
| Repetition Number | 2 | Repetition number on the reported level, i.e. level 4. |
| Type of Error | not understood | |
| Message Structure, *first repetition* | | |
| >IE ID | id-B | IE ID from level 1. |
| Message Structure, *second repetition* | | |
| >IE ID | id-E | IE ID from level 2. |
| >Repetition Number | 3 | Repetition number from level 2. |
| Message Structure, *third repetition* | | |
| >IE ID | id-H | IE ID from the lowest level above the reported level, i.e. level 3. |
| >Repetition Number | 1 | Repetition number from the lowest level above the reported level, i.e. level 3. |

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

## C.3.4 Example 4

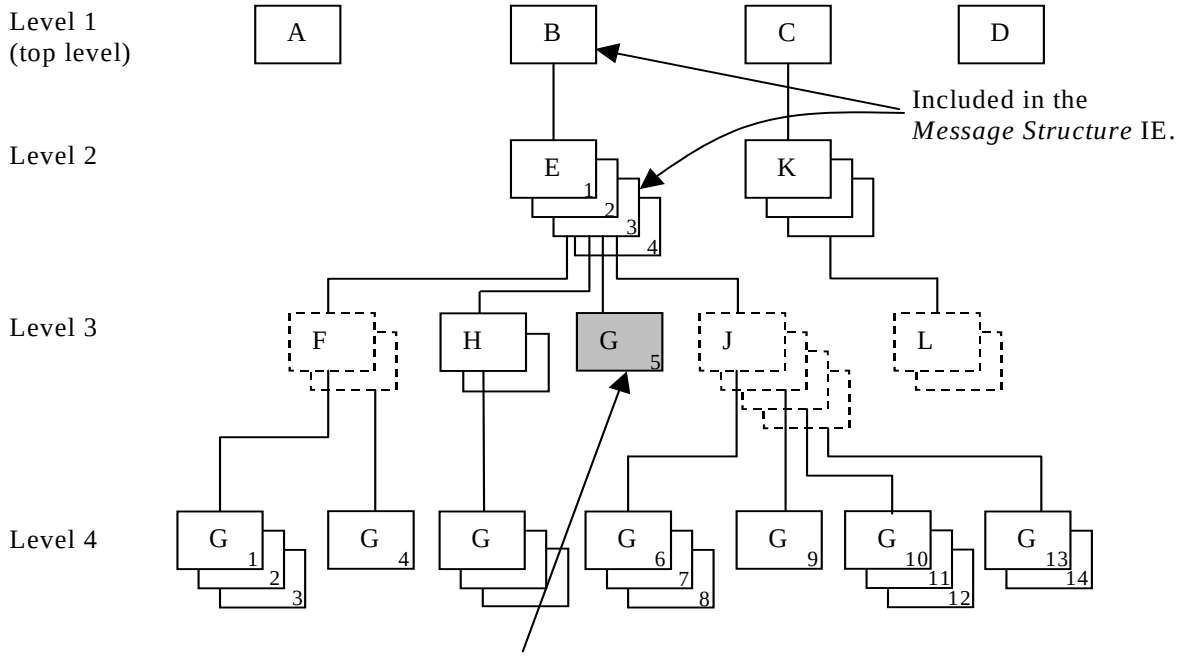



**Figure C.5: Example of a received RNSAP message containing a not comprehended IE**

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 3. |
| IE ID | id-G | IE ID from the reported level, i.e. level 3. |
| Repetition Number | 5 | Repetition number on the reported level, i.e. level 3.<br>(Since the IE E (level 2) is the lowest level included in the *Message Structure* IE this is the fifth occurrence of IE G within the IE E (level 2). |
| Type of Error | not understood | |
| Message Structure, *first repetition* | | |
| >IE ID | id-B | IE ID from level 1. |
| Message Structure, *second repetition* | | |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition Number | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

## C.3.5 Example 5

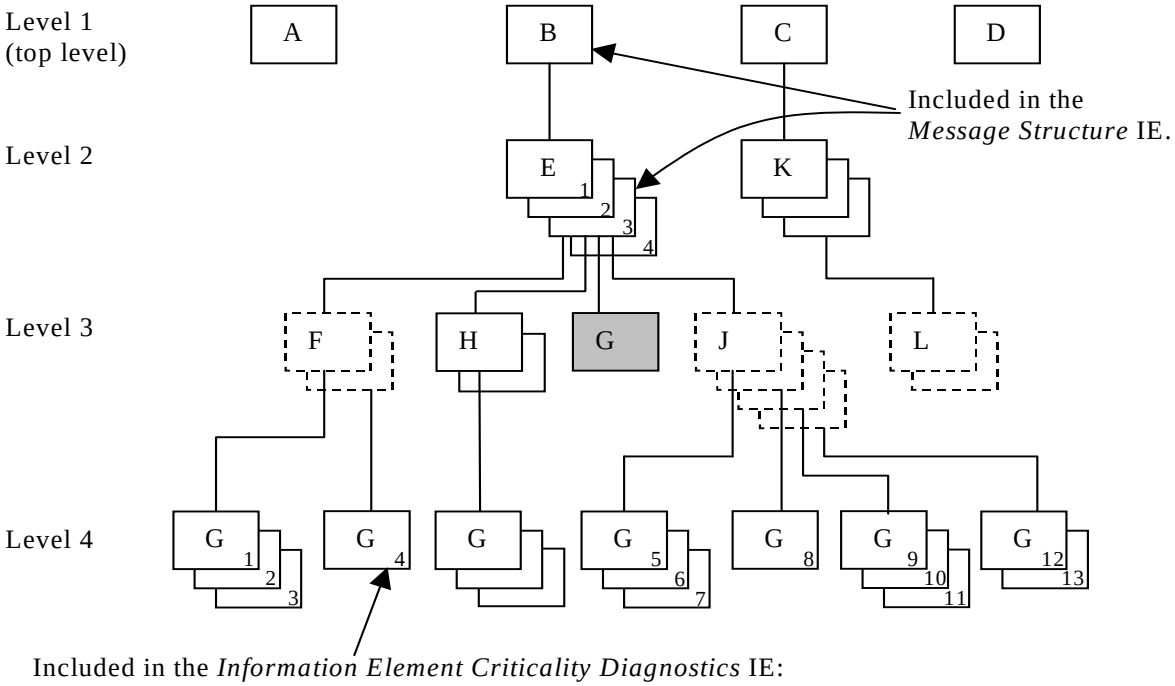



**Figure C.6: Example of a received RNSAP message with a missing IE**

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|---|---|---|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 3. |
| IE ID | id-G | IE ID from the reported level, i.e. level 3. |
| Repetition Number | 4 | Repetition number up to the missing IE on the reported level, i.e. level 3.<br>(Since the IE E (level 2) is the lowest level included in the *Message Structure* IE there have been four occurrences of IE G within the IE E (level 2) up to the missing occurrence. |
| Type of Error | missing | |
| Message Structure, *first repetition* | | |
| >IE ID | id-B | IE ID from level 1. |
| Message Structure, *second repetition* | | |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition Number | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

# C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
    ProtocolIEs         ProtocolIE-Container        {{ExampleMessage-Ies}},
    ProtocolExtensions  ProtocolExtensionContainer  {{ExampleMessage-Extensions}}   OPTIONAL,
    ...
}

ExampleMessage-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-A   CRITICALITY reject  TYPE A  PRESENCE mandatory} |
```

```
    { ID id-B   CRITICALITY reject  TYPE B  PRESENCE mandatory} |
    { ID id-C   CRITICALITY reject  TYPE C  PRESENCE mandatory} |
    { ID id-D   CRITICALITY reject  TYPE D  PRESENCE mandatory} ,
    ...
}

B ::= SEQUENCE {
    e               E-List,
    iE-Extensions   ProtocolExtensionContainer { {B-ExtIEs} }   OPTIONAL,
    ...
}

B-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }

E-Ies RNSAP-PROTOCOL-IES ::= {
    { ID id-E   CRITICALITY ignore  TYPE E  PRESENCE mandatory  }
}

E ::= SEQUENCE {
    f               F-List,
    h               H-List,
    g               G-List1,
    j               J-List,
    iE-Extensions   ProtocolExtensionContainer { {E-ExtIEs} }   OPTIONAL,
    ...
}

E-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-List ::= SEQUENCE (SIZE (1..maxF)) OF F

F ::= SEQUENCE {
    g               G-List2 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {F-ExtIEs} }   OPTIONAL,
    ...
}

F-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List2 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G2-IEs} }

G2-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY ignore  TYPE G  PRESENCE mandatory  }
}

H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }

H-Ies RNSAP-PROTOCOL-IES ::= {
    { ID id-H   CRITICALITY ignore  TYPE H  PRESENCE mandatory  }
}

H ::= SEQUENCE {
    g               G-List3 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
    ...
}

H-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G3-IEs} }

G3-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY notify  TYPE G  PRESENCE mandatory  }
}

G-List1 ::= ProtocolIE-Single-Container { {G1-IEs} }

G1-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-G   CRITICALITY reject  TYPE G  PRESENCE mandatory  }
}

J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J

J ::= SEQUENCE {
    g               G-List4 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {J-ExtIEs} }   OPTIONAL,
    ...
}

J-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G4-IEs} }

G4-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY reject  TYPE G  PRESENCE mandatory  }
}

C ::= SEQUENCE {
    k               K-List,
    iE-Extensions   ProtocolExtensionContainer { {C-ExtIEs} }   OPTIONAL,
    ...
}

C-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }

K-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-K   CRITICALITY notify  TYPE K  PRESENCE mandatory  }
}

K ::= SEQUENCE {
    l               L-List,
    iE-Extensions   ProtocolExtensionContainer { {K-ExtIEs} }   OPTIONAL,
    ...
}

K-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

L-List ::= SEQUENCE (SIZE (1..maxL)) OF L

L ::= SEQUENCE {
    m               M   OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {L-ExtIEs} }   OPTIONAL,
    ...
}

L-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ExampleMessage-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

# Annex D (normative): DRNS Behaviour at SRNC or RNSAP Signalling Bearer Failure

This annex describes the DRNC actions in the event of SRNC or RNSAP Signalling Bearer failure when all or some of the UE Contexts related to the SRNC need to be removed in DRNC.

## D.1 Detection of SRNC or RNSAP Signalling Bearer/Connection Failure

Termination of all or some of the UE Contexts in DRNC which are related to an SRNC may be triggered due to failure of SRNC, RNSAP Signalling Bearer or the Iur signalling connection of an UE(s).

### D.1.1 Termination of all UE Contexts Related to a Specific SRNC

Termination of all UE Contexts in DRNC which are related to a specific SRNC is triggered if the RNSAP Signalling Bearer failure is detected by the RNSAP according to the procedure described in the sub-clause 4.5.1.5.1 of TS 25.420. By “all” UE Contexts, it means all Ues having dedicated and/or common channel resources.

### D.1.2 Termination of Specific UE Context

Termination of a specific UE Context in DRNC is triggered for an UE which has dedicated transport channel resources according to the procedure described in the sub-clause 4.5.1.5.2 of TS 25.420.

## D.2 DRNC Actions at UE Context Termination

When termination of the UE Context is required, the DRNC shall remove any common and/or dedicated radio resources related to the UE Context. The DRNC shall also initiate release of the dedicated or common user plane resources that were involved in these UE contexts. In addition, if it is possible the DRNC shall release the RRC connection.

# Annex E (informative): Change History

| TSG # | TSG Doc. | CR | Rev | Subject/Comment | New |
|---|---|---|---|---|---|
| 09/2009 | - | - | - | Release 9 version created based on v8.6.0 | 9.0.0 |
| 45 | RP-090777 | 1521 | 2 | Introduction of UE AMBR concept in UMTS | 9.0.0 |
| 45 | RP-090774 | 1528 | 1 | Introduction of TxAA extension for non-MIMO Ues | 9.0.0 |
| 45 | RP-090772 | 1529 | 2 | Introduction of Dual-Band HSDPA | 9.0.0 |
| 45 | RP-090773 | 1536 | 1 | Introduction of MIMO for DC HSDPA | 9.0.0 |
| 46 | RP-091188 | 1540 | - | Introduction of Cell Portion for 1.28 Mcps TDD | 9.1.0 |
| 46 | RP-091187 | 1541 | 1 | Single Stream MIMO for DC-HSDPA | 9.1.0 |
| 46 | RP-091186 | 1542 | - | Activation and deactivation of secondary carrier in non serving Node B | 9.1.0 |
| 46 | RP-091182 | 1544 | 1 | Correction of abnormal conditions for Dual cell HS-DSCH in RL Addition procedure | 9.1.0 |
| 46 | RP-091180 | 1551 | 1 | Clarification of the meaning of BIT STRING type IEs for SPS operation for 1.28Mcps TDD | 9.1.0 |
| 46 | RP-091181 | 1558 | 1 | MAC-e Reset Indicator for MAC-I Reset | 9.1.0 |
| 46 | RP-091182 | 1560 | - | Further Corrections for DC-HSDPA | 9.1.0 |
| 46 | RP-091179 | 1563 | 1 | Wrong ref in tabular | 9.1.0 |
| 46 | RP-091179 | 1567 | | STTD is cell specific in Dual-Cell HSDPA | 9.1.0 |
| 46 | RP-091186 | 1568 | 2 | Introduction of Dual Cell E-DCH mode of operation | 9.1.0 |
| 46 | RP-091187 | 1571 | | Removal of MAC-ehs format indicator | 9.1.0 |
| 46 | RP-091179 | 1573 | | Correction on IE “E-AGCH Table Choice” | 9.1.0 |
| 46 | RP-091186 | 1574 | 1 | Introduction of Re9 HSPA Capability into RNSAP | 9.1.0 |
| 47 | RP-100215 | 1576 | | Addition of HS-DSCH physical layer category over Iur | 9.2.0 |
| 47 | RP-100219 | 1577 | 1 | E-RNTI Allocation for UE moves to Cell_FACH from Cell_DCH | 9.2.0 |
| 47 | RP-100215 | 1579 | | Allow reconfiguration of some Ies in RL Addition procedure | 9.2.0 |
| 47 | RP-100219 | 1581 | | Correction of DC-HSDPA Capability in Iur | 9.2.0 |
| 47 | RP-100218 | 1584 | | Correction for the description of E-DCH serving radio link IE for E-DCH semi-persistent operation | 9.2.0 |
| 47 | RP-100215 | 1586 | | Combining E-DCH Radio Links within the RLS | 9.2.0 |
| 47 | RP-100220 | 1587 | 1 | Correction of Multi-cell Capability Report in Iur | 9.2.0 |
| 47 | RP-100230 | 1588 | 2 | Introduction of HS-PDSCH resources on TS0 for 1.28Mcps TDD | 9.2.0 |
| 47 | RP-100217 | 1591 | 3 | Correction to state transition of Enhanced CELL_FACH UE for LCR TDD | 9.2.0 |
| 47 | RP-100230 | 1592 | 2 | Rel-9 Flexible cell combinations in DC-HSDPA | 9.2.0 |
| 47 | RP-100230 | 1593 | 1 | Addition of DGNSS Validity Period in RNSAP | 9.2.0 |
| 47 | RP-100229 | 1594 | 1 | Introduction of UE Aggregate Maximum Bit Rate Enforcement Indicator | 9.2.0 |
| 47 | RP-100218 | 1596 | 1 | Syncronization detection window configuration in CPC for 1.28 Mcps TDD | 9.2.0 |
| 47 | RP-100230 | 1597 | 2 | Measurement occasion configuration in CELL_DCH for 1.28Mcps TDD | 9.2.0 |
| 47 | RP-100216 | 1601 | | Correction for Procedural Text on E-RNTI Allocation at E-DCH Serving Cell Change | 9.2.0 |
| 47 | RP-100199 | 1604 | | Indication of Precoding Weight Set Restriction preference | 9.2.0 |
| 47 | RP-100229 | 1605 | | Rapporteur’s update of RNSAP protocol | 9.2.0 |
| 47 | RP-100224 | 1606 | 3 | Corrections to DC HSUPA | 9.2.0 |
| 47 | RP-100221 | 1608 | | Remove Cell Specific HARQ memory partitioning for DC HSDPA+MIMO and additional corrections for HS-DSCH preconfiguration | 9.2.0 |
| 04/2010 | | | | Corrected a typo in ASN.1 to make it pass the syntax checker | 9.2.1 |
| 04/2010 | | | | ToC updated | 9.2.2 |
| 04/2010 | | | | Corrupted headers fixed | 9.2.3 |
| 48 | RP-100592 | 1618 | 1 | CPC parameters missing for serving HS-DSCH RL change in RL Addition procedure | 9.3.0 |
| 48 | RP-100593 | 1622 | | Correction of procedure text that appears to be duplicated and mis-placed | 9.3.0 |
| 48 | RP-100594 | 1625 | 2 | CQI Feedback Cycle k for DC-HSDPA and MIMO operation | 9.3.0 |
| 48 | RP-100591 | 1629 | | Correction when the power offset for S-CPICH for MIMO is zero | 9.3.0 |
| 48 | RP-100545 | 1631 | | Correction for Enhanced Serving Cell Change | 9.3.0 |
| 49 | RP-100904 | 1633 | 1 | Clarification of 64 QAM usage at intra Node B serving HS-DSCH RL change | 9.4.0 |
| 49 | RP-100909 | 1634 | 2 | Corrections to HSDPA secondary serving cell list handling | 9.4.0 |
| 49 | RP-100905 | 1637 | | Correction of procedure text for E-DCH SPS operation | 9.4.0 |
| 49 | RP-100904 | 1641 | | Addition of UE with enhanced HS-SCCH support indicator IE for Cell_FACH | 9.4.0 |

# History

| Document history | | |
|---|---|---|
| V9.1.0 | February 2010 | Publication |
| V9.2.3 | April 2010 | Publication |
| V9.3.0 | July 2010 | Publication |
| V9.4.0 | October 2010 | Publication |
| | | |